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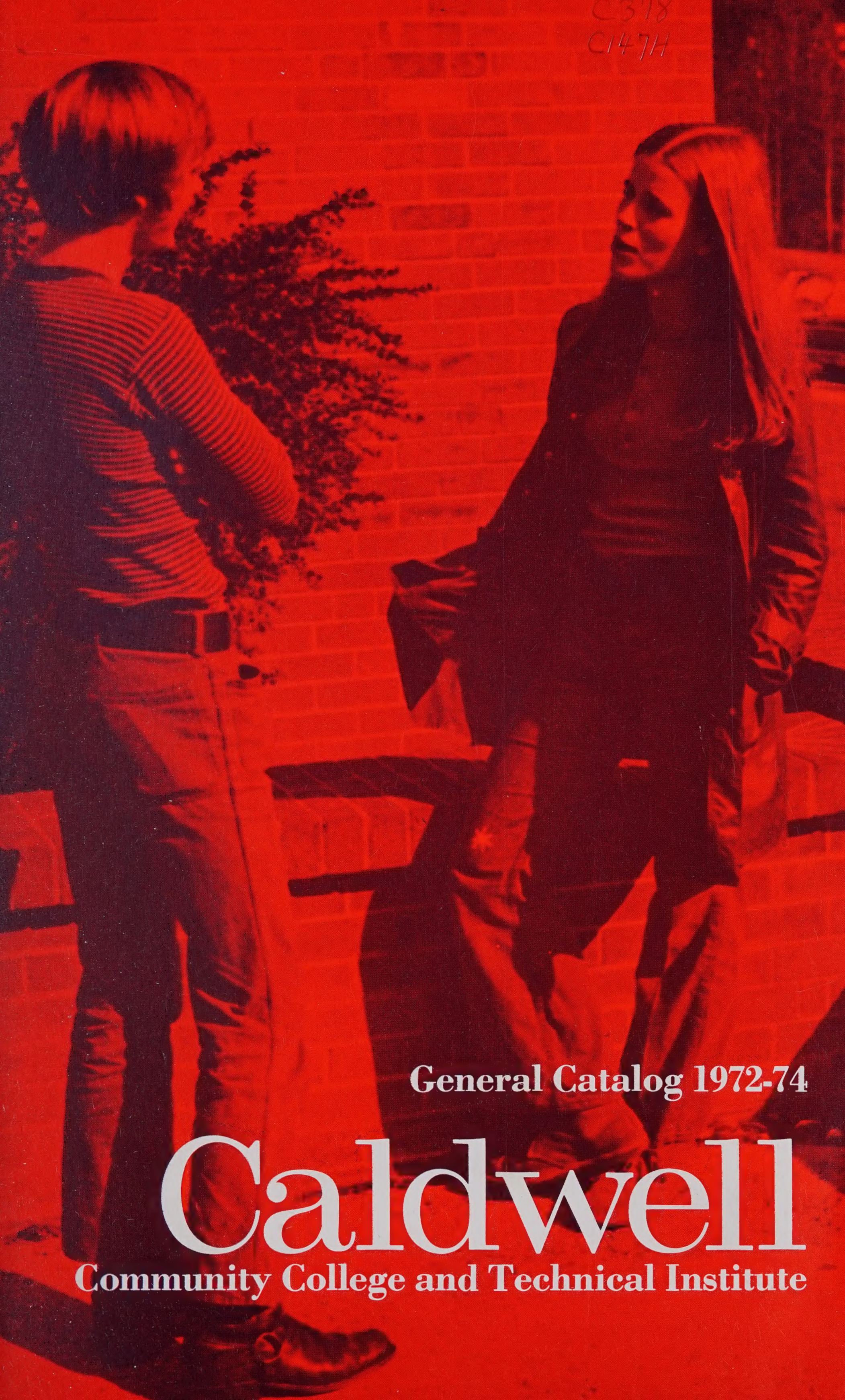

General Catalog 1972-74

Caldwell

Community College and Technical Institute

GENERAL CATALOG

EFFECTIVE SEPTEMBER 1, 1972
FOR THE 7TH ACADEMIC YEAR

Volume V—Number 1
Published—September, 1972

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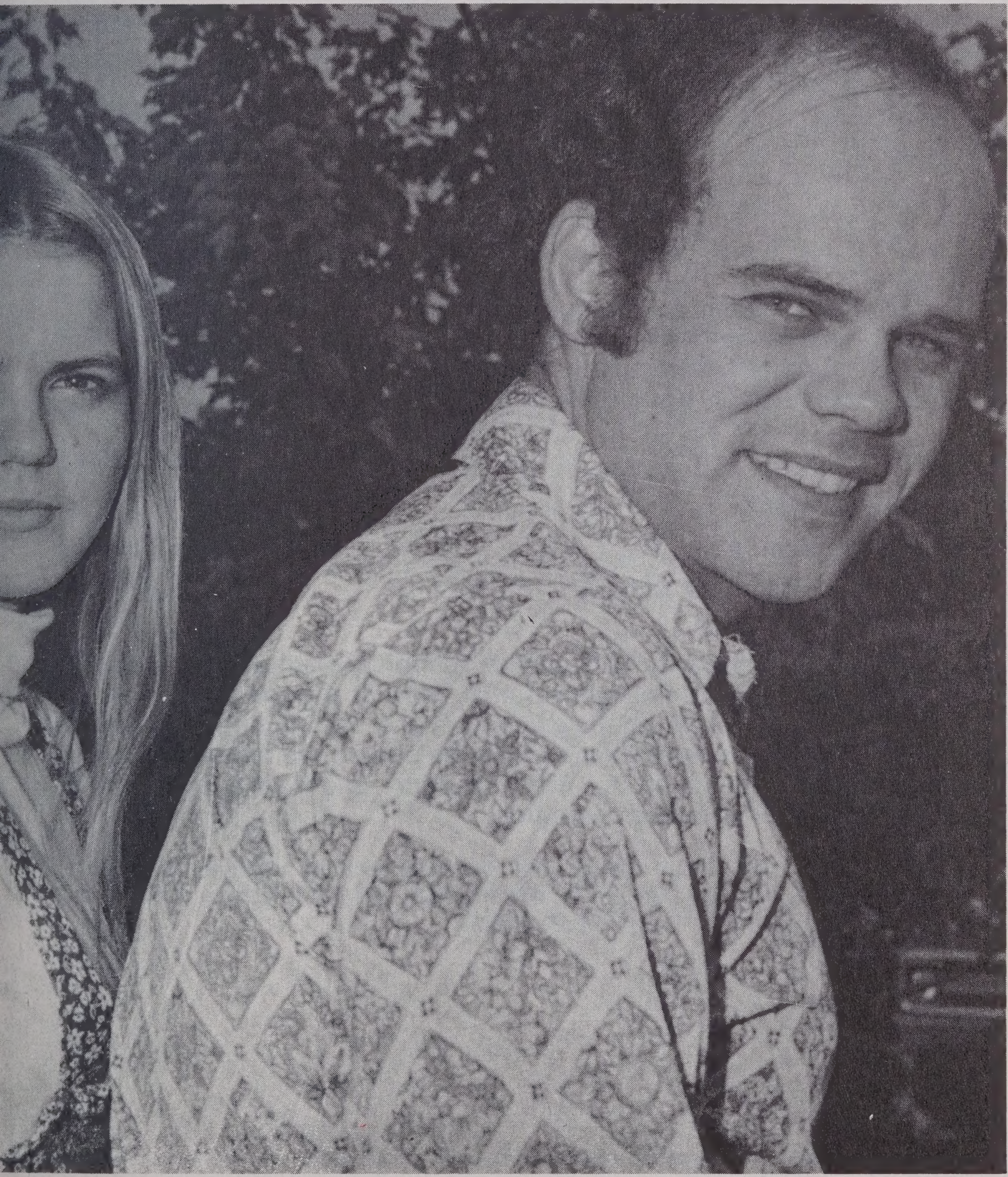
Catalog 1972-74

Caldwell

Community College and Technical Institute



1964

Students having questions not answered in this publication may obtain further information from the Student Affairs Office, Caldwell Community College and Technical Institute, Box 600, Lenoir, or Box 684, Hudson, North Carolina.

Telephones:

Lenoir area	728-4323
Granite Falls & Hickory	396-3311

Caldwell Community College and Technical Institute complies with Title VI of the Civil Rights Act of 1964 in that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity offered by the institution.

Caldwell Community College and Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary.

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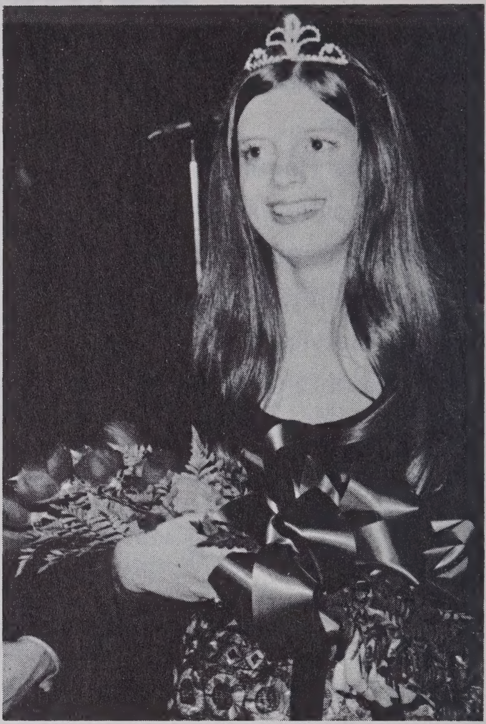


COLLEGE CALENDAR/1972-74

FALL QUARTER 1972-73 (54 Days)

Registration	M Tu	Sept. 4, 5	
Classes Begin	Th	Sept. 7	8:00 AM
Professional Development	F	Oct. 13	
Fall Quarter Ends	W	Nov. 22	10:00 PM
Exams	F M Tu W	Nov. 17, 20, 21, 22	
Thanksgiving Holidays Begin	W	Nov. 22	10:00 PM

WINTER QUARTER 1972-73 (55 Days)

Registration	Tu	Nov. 28	
Classes Begin	Th	Nov. 30	8:00 AM
Christmas Holidays Begin	F	Dec. 15	5:00 PM
Professional Development	M	Dec. 18	
Classes Resume	Tu	Jan. 2	8:00 AM
Winter Quarter Ends	Th	Mar. 1	10:00 PM
Exams	M Tu W Th	Feb. 26, 27, 28, Mar. 1	

SPRING QUARTER 1972-73 (54 days)

Registration	M	Mar. 5	
Classes Begin	Tu	Mar. 6	8:00 AM
Easter Holidays Begin	Th	Apr. 19	10:00 PM
Professional Development	F	Apr. 20	

Classes Resume	M	Apr. 30	8:00 AM
Spring Quarter Ends	M	May 28	5:00 PM
Exams	W Th F M	May 23, 24, 25, 28	

SUMMER QUARTER 1972-73 (54 Days)

Registration	W	May 30	
Classes Begin	F	June 1	8:00 AM
Graduation—Continuing Education	F	June 22	7:30 PM
July 4th Holidays Begin	F	June 29	5:00 PM
Classes Resume	M	July 9	8:00 AM
First Session Ends	F	July 13	5:00 PM
First Session Exams	F	July 13	
Registration 2nd Session	F	July 13	
Second Session Begins	M	July 16	8:00 AM
Summer Quarter Ends	W	Aug. 22	10:00 PM
Exams	M Tu W	Aug. 20, 21, 22	
Graduation	F	Aug. 24	7:30 PM

FALL QUARTER 1973-74 (54 Days)

Registration	M Tu	Sept. 3, 4	
Classes Begin	Th	Sept. 6	8:00 AM
Professional Development	F	Oct. 19	
Fall Quarter Ends	W	Nov. 21	10:00 PM
Exams	F M Tu W	Nov. 16, 19, 20, 21	
Thanksgiving Holidays Begin	W	Nov. 21	10:00 PM

WINTER QUARTER 1973-74 (55 Days)

Registration	Tu	Nov. 27	
Classes Begin	Th	Nov. 29	8:00 AM
Christmas Holidays Begin	F	Dec. 21	5:00 PM
Professional Development	F	Jan. 4	
Classes Resume	M	Jan. 7	8:00 AM
Winter Quarter Ends	W	Feb. 27	10:00 PM
Exams	F M Tu W	Feb. 22, 25, 26, 27	

SPRING QUARTER 1973-74 (55 Days)

Registration	F	March 1	
Classes Begin	Tu	March 5	8:00 AM
Easter Holidays Begin	Th	April 11	10:00 PM
Professional Development	F	April 12	
Classes Resume	M	April 22	8:00 AM
Spring Quarter Ends	Tu	May 28	5:00 PM
Exams	Th F M Tu	May 23, 24, 27, 28	

SUMMER QUARTER 1973-74 (55 Days)

Registration	Th	May 30	
Classes Begin	M	June 3	8:00 AM
Continuing Education Graduation	F	June 28	7:30 PM
July 4th Holidays Begin	F	June 28	5:00 PM
Classes Resume	M	July 8	8:00 AM
First Session Exams	F M	July 12, 15	
Registration for Second Session	Th	July 11	
Registration for Students Not Enrolled 1st Session	F	July 12	
Second Session Begins	Tu	July 16	8:00 AM
Second Session Exams	Th F	Aug. 22, 23	
Graduation	Tu	Aug. 27	7:30 PM
Regular Session Exams	Tu W Th F	Aug. 20, 21, 22, 23	

THE COLLEGE

HISTORY

Several historical events are important in the development of the Caldwell Community College and Technical Institute.

The 1963 North Carolina General Assembly passed the Community College Act creating a system of comprehensive community colleges, technical institutes, and industrial education centers in the State under the State Board of Education.

In January, 1964, the Caldwell Community College and Technical Institute was tentatively approved by the State Board of Education. On March 28, 1964, the people of Caldwell county approved the college through the bond note of $600,000 for the purchase of the site and construction of the facilities and up to 5 cents tax authorization for operating the college. Final approval by the State Board of Education followed on April 2, 1964.

The President was selected in October, 1964. The site was selected in January, 1965. Selection of the architect was made in February, 1965. New facilities were occupied in September, 1967.

On July 1, 1970 Caldwell Technical Institute was authorized by the State Board of Education to offer College Parallel courses. Subsequently, Caldwell Technical Institute changed its name to the present Caldwell Community College and Technical Institute.

A referendum seeking approval of the issuance of $800,000 in bonds by Caldwell County was proposed and voted upon December 7, 1971. The local money was to match a federal grant of $710,400 under the Appalachian Region Commission program; this referendum was passed by more than a 2 to 1 majority.

Plans have been developed to increase the size of the institute by about 50,000 square feet. Construction is expected to begin in late 1972 with completion date scheduled for fall, 1973. New programs will be possible and expansion of current programs is planned.

PURPOSES AND OBJECTIVES

Caldwell Community College and Technical Institute, serving primarily Caldwell and surrounding counties and operating within the legal framework set by the North Carolina General Assembly, opens its doors to any person desiring to learn. Courses are offered in general adult education, in technical and vocational areas, and college transfer work. The college is committed to providing quality, inexpensive continuing education opportunities to meet the needs of young people and adults at facilities located within commuting distance.

In keeping with the general purposes of Caldwell Community College and Technical Institute, the board of trustees, the administrative staff, and the faculty have adopted certain specific objectives. These are to:

Provide effective instruction to all who enroll.

Provide educational opportunities for adults who discontinued their formal education before mastering the basic skills of reading, writing, and arithmetic.

Provide curricula that will reflect changing needs of the community and educational patterns for employment including new and expanding industry.

Provide general interest courses that meet adult education and community service needs.

Provide vocational education programs for individuals who are preparing to enter an occupation at that level.

Provide technical education programs for those individuals wishing to enter the more highly-skilled occupations in business and industry.

Provide a two-year program of general education for individuals who desire college transfer work.

Provide cultural opportunities to broaden the general education of the students and of the community at large.

Provide educational services for organizations and individuals (including speakers, resource personnel or materials, special institutes or programs, and reading lists as requested).

Provide opportunity for senior citizens to engage in educational activities appropriate to their needs and desires.

Provide appropriate counseling and guidance services to all individuals.

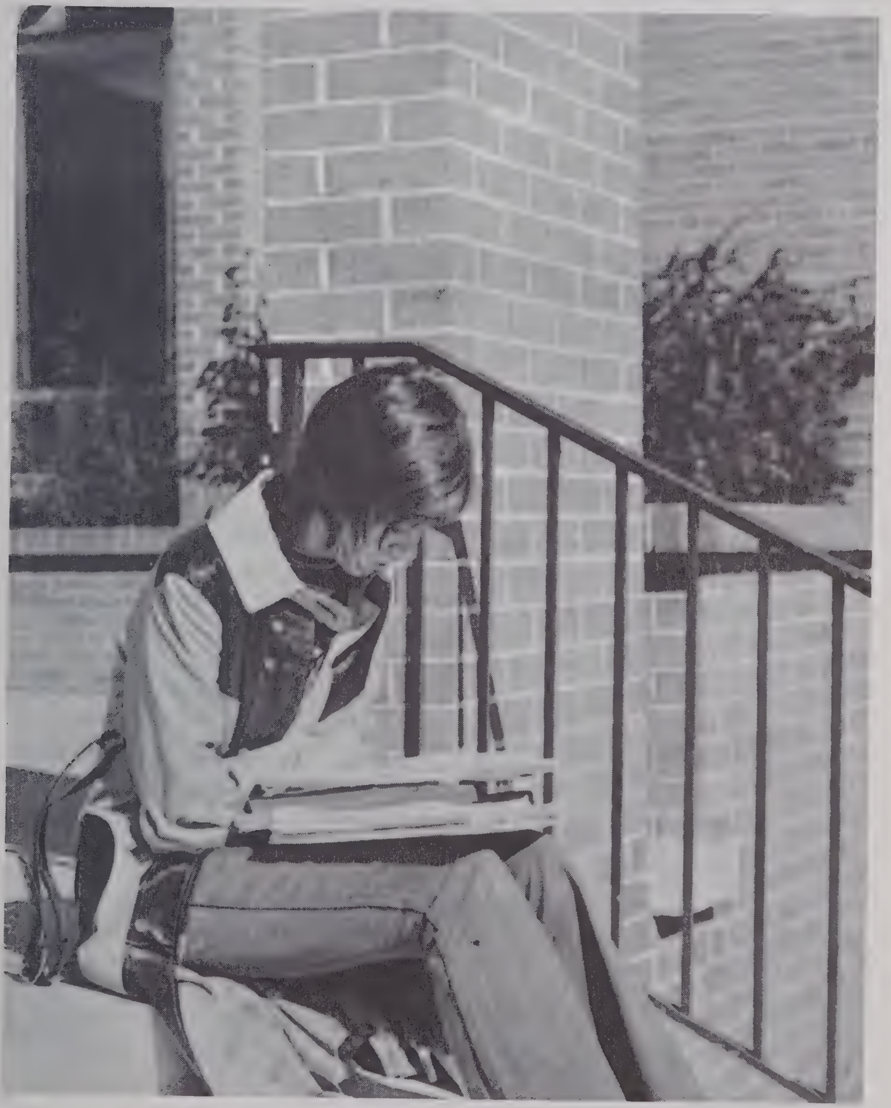
Provide assistance and information that would stimulate interest in education throughout the community and articulate the need of the individual to continually increase his education.

LOCATION

The Caldwell Community College and Technical Institute is located on a 78-acre tract of land in Hudson, North Carolina. Since the college is on Highway 321, it is accessible to the population centers of Lenoir (5 miles), Granite Falls (5 miles), and Hickory (10 miles).

ACCREDITATION

Caldwell Community College and Technical Institute is a comprehensive public community college operating under the North Carolina Department of Community Colleges. The college is approved by the North Carolina State Board of Education. Caldwell Community College and Technical Institute is accredited by the Southern Association of Colleges and Schools.



ADMISSIONS

(CURRICULUM CREDIT PROGRAMS)

HOW TO APPLY FOR ADMISSION

The Caldwell Community College and Technical Institute is a co-educational college open to any individual meeting the admission requirements for the particular course or area in which he wishes to enroll. These requirements vary with the areas of study offered by the college.

Vocational Curricula

A candidate for admission to the one-year diploma program must meet the following:

1. Secure application form and make application for admission.
2. Submit a $5.00 non-refundable deposit which will be applied to the tuition of the particular quarter admission is desired.
3. Submit a transcript of school records and a health form.
4. Be at least 18 years of age.
5. Complete the required placement inventories for specific programs.
6. Have a personal interview with a designated member of the student affairs staff and/or department representative of program applying for.

Technical Curricula:

Requirements for admission of a candidate to the regular two-year technology program include the following:

1. Secure application form and make application for admission.
2. Submit a $5.00 non-refundable deposit which will be applied to the tuition of the particular quarter admission is desired.

3. Submit a transcript of school records and a health form.
4. Be a high school graduate or have a state approved equivalent education.
5. Have scores on the School and College Ability Test administered by Caldwell Community College and Technical Institute. The School and College Ability Test is given Monday-Thursday 9 a.m.-7 p.m. and on Friday 9 a.m.-12 noon in the Advancement Laboratory. (Scores on the College Board Scholastic Aptitude Test "S.A.T." may be used in lieu of the S.C.A.T.) Students entering certain programs may be required to take additional placement inventories.

   Developmental studies are available to students who need additional work.
6. Have a personal interview with a designated member of the student affairs staff and/or department representative of program applying for.

College Transfer Curricula:

Requirements for admission of a candidate to the regular two-year college transfer program include the following:

1. Secure application form and make application for admission.
2. Submit a $5.00 non-refundable deposit which will be applied to the tuition of the particular quarter admission is desired.
3. Submit a transcript of school records and a health form.
4. Be a high school graduate or have a state approved equivalent education.
5. Have scores on the Scholastic Aptitude Test (S.A.T.). The S.A.T. is given five times yearly by the College Entrance Examination Board and information is available from the college, local guidance counselors or by writing Box 592, Princeton, New Jersey. (Scores on the College Qualification Test administered at Caldwell Community College and Technical Institute may be used until the S.A.T. can be taken.) The College Qualifications Test is given Monday-Thursday 9 a.m. - 7 p.m. and Friday 9 a.m. - 12 noon in the Advancement Laboratory.

   Developmental studies are available to students who need additional work.
6. Have a personal interview with a designated member of the student affairs staff or faculty advisor.

PROVISIONAL STUDENT

Students whose records are not complete may be permitted to enter the College as a **Provisional Student** on the basis of a personal interview with a member of the Student Personnel Staff. A provisional student will be required to complete admissions requirements prior to the final exam period of the particular quarter in which he is enrolled. Should the above requirements not be met prior to the final examination period of the particular quarter in which he enters, grades will be recorded on the permanent record as "Audit" and no credit will be given.

INDUSTRY RELATED STUDENT

All students now working full-time in industry who desire to enroll in courses directly related to their occupation need only the written recommendation of their employer, a transcript, a health form, and the completed application form. However, before any student can pursue the second year of an Associate in Applied Science degree program, he must have the high school diploma or an equivalency certificate.

OTHERS

Students possessing college degrees who wish to enter either technical of vocational courses will be exempt from the Placement Inventories. Such students need only their college transcripts, the completed application, and their health forms.

RE-ADMISSIONS POLICY

A student dismissed from the college for any reason can be considered for re-admission by the Admissions Committee after one quarter's absence following dismissal.

TRANSFER STUDENTS

Students may be admitted with advanced standing by transfer from technical institutes, colleges or universities. All applicants for transfer must have maintained a "C" average or better on courses taken at other institutions and must be eligible to return to the last institution attended.

If admitted, the prospective transfer student's record will be evaluated by the Registrar to determine the amount of credit that can be transferred and applied toward the program in which the applicant desires advanced standing.

PROFICIENCY EXAMINATIONS

Advanced placement is offered to those students who, because of their demonstrated abilities, are qualified to accelerate their studies. To obtain advanced placement, the student may take a proficiency examination in a subject when he believes that he has mastery of the course material. Application for such an examination must originate with the Registrar. If the student has registered for the course and is on the class roll at the time of the proficiency exam, final grades will be treated as a regular course (A,B,C,D,F). If the examination is given prior to his registering for the course, the grade will be either P-passed or F-failed, with only the hours counting.

ADMISSION OF FOREIGN STUDENTS

Caldwell Community College and Technical Institute is authorized by the U. S. Department of Naturalization and Immigration to admit foreign students. This permission was granted on July 12, 1966, with authorization number WAS 214-f562.

All applicants from foreign countries are expected to submit necessary academic documents with appropriate test results at least three months prior to the quarter in which they plan to enter.

VETERANS

Qualified veterans who are admitted for instruction may be approved upon presentation of the Certificate of Eligibility issued by the Veterans Administration. Students will be accepted under Public Law 550 or Public Law 89-358. Veterans under the above mentioned laws are responsible directly to the school upon registration for payment of all costs. Veterans will further be responsible for furnishing the Veterans Counselor with a monthly attendance report. No reimbursement cards can be authorized by the school until such reports are on file.

OFFICERS
SENATORS

GENERAL ACADEMIC REGULATIONS

Grading System

Official grades are issued for each student at the end of each quarter. Students who lack passing averages at mid-quarter will be notified of this fact and should schedule a conference with the instructor and/or his advisor.

Students enrolled in curriculum program courses will be graded by the **letter-grade** system shown below and assigned a grade point equivalent in quality points for each quarter scheduled.

Numerical Equivalent	Letter Grade	Grade Point Equivalent
93-100	A—Excellent	4 quality points each quarter hour
85-92	B—Good	3 quality points each quarter hour
77-84	C—Average	2 quality points each quarter hour
70-76	D—Below Average	1 quality point each quarter hour
Below 70	F—Unsatisfactory	0 quality points each quarter hour
	I— Indicates failure to complete certain course requirements because of extenuating circumstances.	
	W—Student withdrew from the course.	
	Y—Indicates no grade or credit given.	
	P—Proficiency examination credit.	

Courses Repeated for Credit

When a course is repeated, the last grade is recorded as the final grade for the course, and only the last hours attempted are counted in determining the students grade point average.

Auditing

A student who audits a course pays the regular registration and tuition fees. Auditors do not take tests, examinations, or receive grades or credit and cannot later change the "Audit" to credit.

CLASS DESIGNATION

Students completing 45 quarter hours of course work will be listed as sophomores.

SCHEDULE CHANGES

Change of student schedule after registration has been completed will be made only with permission of the Registrar.

ACADEMIC PROBATION

Students failing to maintain a 2.0 overall grade point average will be considered on academic probation and will be asked to limit their course load to a maximum of nine credit hours per quarter.

COURSE LOAD

Students enrolled for 12 or more credit hours are classified as full-time students. Those taking less are classified as part-time. Normal course load will vary from one curriculum to another and should be carefully planned with the Faculty Advisors. A student may enroll for a maximum load depending upon his capability as determined by his Faculty Advisor. A normal course load is outlined by departments in this catalog.

APPLICATION FOR DEGREE OR DIPLOMA

Students are required to apply as candidates for the diploma or the degree. This must be completed during the first two weeks of the last quarter of school attendance. This insures that the candidate's record will be properly reviewed and that he will be notified of any deficiencies.

Requirements for Graduation

A student is eligible for graduation when he has fulfilled the following requirements:

1. Has satisfactorily completed all the requirements of the curriculum in which he is enrolled.
2. Has sufficient quality points for an overall average of 2.0.
3. Has taken care of all financial obligations to the Caldwell Community College and Technical Institute.

Honors

Dean's List—At the end of each quarter, an academic honor list will be published of all students who complete 10 or more credit hours and who have a quality point average of 3.25 or above.

A graduating student who has earned an overall quality point average of 3.25 or better during his work at Caldwell Community College and Technical Institute will receive his diploma or degree "With Honors."

RESTRICTIONS ON CLASS ADMISSIONS

No person may attend classes unless the registration procedure has been completed.

RESIDENCY REQUIREMENTS FOR GRADUATION

Candidates for a diploma or degree from Caldwell Community College and Technical Institute are expected to complete the last 25% of their course work at the College.

Attendance Policy

Students are expected to attend every meeting of every course in which they are enrolled. As all students are adults, some with many responsibilities, an occasional absence from class might be absolutely necessary; however, such absences in no way lessen the student's responsibility for meeting the requirements of the class.

In case of prolonged illness, a student should present a doctor's certificate for any absences beyond the third day (or from the beginning if a teacher requests it) if he wishes such absences to be excused.

According to college regulations, "A student must be dropped from the roll not later than the fifth consecutive *unexcused* absence, or earlier if notified by the proper college official."

SUSPENSION AND DISMISSAL

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Students shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicular traffic and parking, smoking, and other aspects of personal conduct must be observed. Students may be suspended or dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Re-admittance of dismissed students at a subsequent session will be at the discretion of the College.

TRANSCRIPTS OF CREDIT

Transcripts of credit will be supplied to all students and former students requesting them, subject to certain conditions. Individuals must have made satisfactory financial arrangements to care for all amounts due the College.

WITHDRAWING FROM SCHOOL

Students who withdraw from the College during any quarter must first consult with the Student Personnel Office. This protects the student's scholastic record, his right to re-enroll, and his right to transfer to another Community College.

A student may withdraw from any course prior to the end of the 8th week and receive a W with no bearing on his G.P.A. There is no limit to the number of times a student may withdraw from a particular course.

Student Contact Hours

The contact hours shown in the catalog are minimal. It is a policy of this institution to permit students to enroll in additional subjects and laboratory work beyond those shown in the catalog in order to broaden their education.

CATALOG REQUIREMENTS

Candidates for the diploma or degree must meet the requirements as outlined in the catalog for the year of their first enrollment or for any subsequent bulletin under which work is taken, but in all cases must complete work for their diploma or degree within 10 years from the date of the catalog selected.

STUDENT EXPENSES

STATEMENT OF POLICIES REGARDING STUDENT EXPENSES

Tuition and fees for each quarter are payable on or before the date of registration.

All checks and money orders should be made payable to Caldwell Community College and Technical Institute. A check given in payment of expenses which is returned by the bank creates an indebtedness to the College and jeopardizes the student's enrollment.

Any student who is unable to make payment at the time of registration must make special arrangements with the Dean of Business Affairs to pay outstanding balance of tuition and fees within the first week of classes. If a longer extension of time is needed a student must assure payment of any outstanding balance of tuition and fees.

TUITION

Caldwell Community College and Technical Institute offers educational opportunity at minimum cost to the student. Tuition fees are set by the State Board of Education and are subject to change without notice. Cost of textbooks and supplies are additional expenses which vary according to the program of study. Current basic fees to be paid by students upon enrollment are as follows:

College Transfer Program

Tuition fee of $3.00 per credit hour with a maximum tuition charge of $42 per quarter.

Technical and Vocational Programs

Tuition fee of $2.50 per credit hour with a maximum tuition charge of $32 per quarter.

General Adult Education Programs

No tuition fees charged. A charge for supplies is made when necessary

ADVANCED TUITION DEPOSIT

For New Students

A $5.00 advanced tuition deposit is required with all applications for full-time attendance. This amount will be deducted from the student's first quarter tuition charge, leaving the balance due. **The tuition deposit is not refundable.**

ACTIVITY FEE

(Full and Part-time Students)

All curriculum students taking three or more courses will pay a student activity fee of $3 per quarter at the time of registration.

Part-time students taking two courses will pay $2; students taking 1 course will pay $1. No activity fee will be collected for extension courses. These fees are used to finance student body activities such as: school newspaper, school annual, dances, picnics, sports supplies and equipment, special events, etc. **This fee is not refundable.**

INSURANCE

Accident insurance, covering hours in school and transportation to and from school, is available for $3.00 per year. Students desiring this insurance may make payment to the bookkeeper while registering for the Fall Quarter and at other designated times. **It is not refundable.**

Neither the College nor the State of North Carolina carries insurance to cover any student for accidents or otherwise. Therefore, students enrolled in all shops and labs are particularly urged to take advantage of this insurance.

Books and Supplies

A student is required to buy the necessary textbooks and supplies prescribed in the curriculum area he is entering. These vary according to different courses taken by the student. An average expenditure of $40.00 can be expected by the new Fall Quarter student for books. The bookstore handles second-hand books for students wishing to cut their book expense. Normal school supplies are sold during regular bookstore hours.

FEES FOR SPECIAL PURPOSES

Special activity and equipment useage fees are charged for some curriculum courses. Physical Education, Art, Music, Physics, and Science are examples of courses that may or may not have special purpose fees. Special fees will be indicated on the general course schedule.

Graduation expenses for diploma, cap and gown are payable at the beginning of the quarter in which the student expects to graduate. These costs are presently set at approximately $10.00.

Cosmetology students are required to purchase their uniforms. These costs vary among different students.

The school yearbook is provided to students each spring quarter with cost assessed as follows:

A $3.00 initial yearbook payment when ordering the yearbook and then:

Students paying $9 activity fees—No extra charge
Students paying $8 activity fees—$1 extra charge
Students paying $7 activity fees—$2 extra charge

LATE REGISTRATION FEE

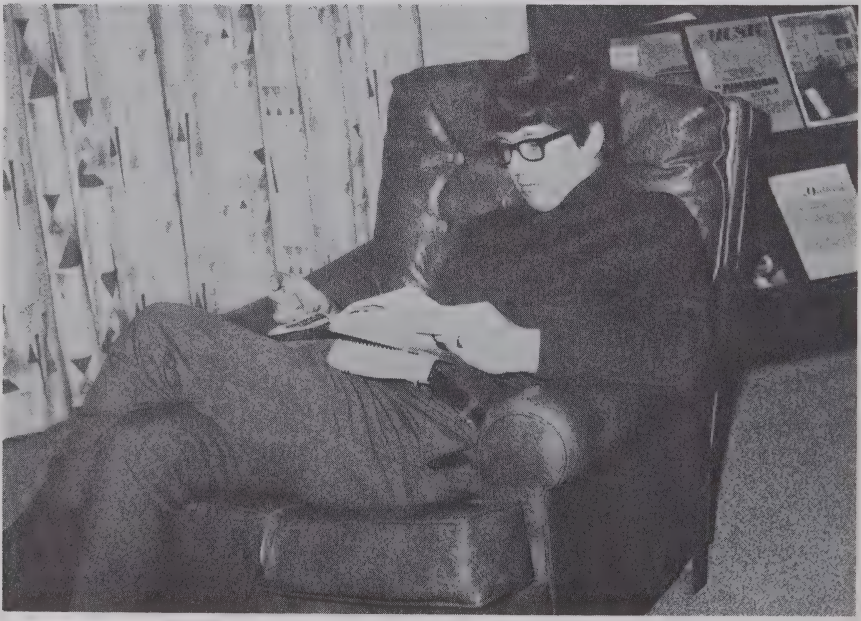
Students that have attended Caldwell Community College and Technical Institute the quarter prior to any registration period will be assessed a $1.00 per course late registration fee when registering at periods other than those specified in the school calendar.

REFUNDS FOR FULL-TIME STUDENTS

Tuition refunds for full-time students are made only when a student withdraws from the College for unavoidable reasons. In such cases, $20.00 may be refunded to Technical and Vocational students if withdrawal is completed within 10 calendar days from the first day of classes in the particular quarter. College transfer students will be refunded a maximum of $28.00.

REFUNDS FOR PART-TIME STUDENTS

Refunds for part-time students are made only when a student withdraws from the College for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if withdrawal is completed within 10 calendar days from the first day of classes in the particular quarter. Refunds for tuition of $5 or less will not be considered unless a course fails to materialize.



FINANCIAL AID FOR STUDENTS

GENERAL INFORMATION

Caldwell Community College and Technical Institute encourages prospective students who desire to enroll but face difficult financial problems to consult with the Student Aid Committee through the Dean of Student Affairs.

This committee is concerned not only with the awarding of scholarships but also with awarding work study grants and loans. Within the limited funds available for these purposes, every effort is made by the College to help students who need monetary assistance.

APPLICATION PROCEDURE

Students who are entering Caldwell Community and Technical Institute for the first time and are in need of scholarship aid are requested to follow this pattern of cooperation:

1. After application for admission has been initiated (see Admissions), write to the Financial Aid Officer and outline need for financial aid. Instructions and the aid application will be sent to the applicant. It is to the advantage of the student to apply as early as possible for financial assistance.
2. The applicant should complete the student aid application as soon as possible and return it to the Financial Aid Officer. All items on the application **must** be complete for the committee to consider the application.
3. Report for a personal interview when designated.
4. Determination of the scholarship, loan, or work-study grant will be made by the Institute's Student Aid Committee and

applicants will then be notified by letter from the Financial Aid Officer.

TYPES OF AID AVAILABLE

Various types of financial aid are available. Applicants may apply for a scholarship, grant, loan, work-study or any combination of these. The total combined sum of these must not exceed total expenses. Caldwell Community College and Technical Institute participates in the following financial aid programs:

The college currently offers approximately 10 scholarships in varying amounts. The sources of these scholarships (clubs, individuals, industries, businesses, etc.) determine what criteria are to be used in awarding them.

SCHOLARSHIPS

Scholarships available as of the printing of this publication are:

Claude F. Seila Scholarship

Awarded each year to one student taking a full time curriculum. This scholarship, given by the Lenoir Woman's Club, will award $175.00 to the recipient.

Dr. Caroline M. McNairy Scholarship Fund

A memorial scholarship fund established in 1969 to be awarded to deserving practical nursing students, radiologic technical students, and medical executive secretarial students.

Doug Tolbert Scholarship

This memorial scholarship is given by Alpha Delta Kappa Sorority.

Mu Alpha Theta Scholarship

This scholarship was given by the Hudson High math fraternity, Mu Alpha Theta, in 1971. This scholarship is to be given to a deserving Hudson High graduate.

Northwestern Bank Scholarship

Perpetual scholarship given by the local Directors of Northwestern Bank whose personal contributions are matched by the bank, established in 1970.

C. W. Porter Scholarship

A memorial scholarship given by friends of the late C. W. "Soup" Porter. Established in 1971 with initial contributions from 26 individuals and businesses totaling over $5,000.00.

Student Government Scholarship

This scholarship awards $100 to both a male and female student for their outstanding contributions to student activities.

National Defense Student Loan

This is a federal loan through which the student may borrow up to $1,000 each academic year. Payment begins nine months after the student graduates at three percent interest a year, with a repayment period of 10 years. If the borrower becomes a full-time teacher, half of the loan may be forgiven at the rate of 10 percent for each year of the teaching service. The entire loan may be cancelled at the rate of 15 percent per year if the borrower elects to teach in certain designated low-income (poverty) areas. Repayment may be deferred while the borrower is in the armed forces, peace corps, VISTA or still enrolled at an institution of higher education.

College Foundation Loan

North Carolina residents may apply for a guaranteed loan through the college foundations. Applicants must be enrolled full-time and be in good academic standing. Loans may be granted up to $1,500 per academic year, but the total sum borrowed may never exceed $7,500. The federal government pays the interest of seven percent per year while the borrower is enrolled full-time. After graduation or leaving school, the borrower then assumes the full seven percent interest on the balance of the loan.

Temporary Emergency Loans

Temporary loans are available for those students awaiting the arrival of other resources. A loan of $50 may be made by the financial aid officer to a student temporarily without the funds required for books, tuition or other necessary expense incidental to attending college. The loan will be a short term advancement which must be repaid upon receipt of authorized resources.

North Carolina Prospective Teacher Scholarship Loan

This scholarship provides financial assistance toward completing programs of study in preparation for teaching. These scholarships are available to North Carolina residents of high scholastic ability and teaching aptitude.

Scholarships are to be repaid by teaching in the public schools of North Carolina for a period of three, four or five years, according to the amount of the scholarship received, or in cash at five percent interest.

Applications may be obtained either from the high school guidance counselor or from the financial aid office at Caldwell Community College and Technical Institute.

Scholarship-Loan Fund for Prospective Teachers of the Mentally Retarded

This scholarship-loan is awarded to college students desiring to teach the mentally retarded. The recipient of the loan receives $900 per academic year if he is enrolled full-time in an accredited college or university of North Carolina and is a resident of North Carolina.

After the student's graduation, the interest on the unpaid balance shall be paid at the rate of four percent per annum, beginning September 1 following the graduation date. Applications should be submitted to the State Superintendent of Public Instruction in Raleigh on forms supplied by him. The recipient will be obligated to teach in the North Carolina Public Schools or in a public resident institution for mentally retarded children for one year for each year he received aid. Applications may be obtained either from high school guidance counselors or from the financial aid office at Caldwell Commmunty College and Technical Institute.

EDUCATIONAL OPPORTUNITY GRANTS

This program of direct grants of financial aid is available to students from low-income families who would not be able to attend Caldwell Community College and Technical Institute without such help. Grants are made to cover all expenses necessary for the student to continue at Caldwell Community College and Technical Institute.

COLLEGE WORK-STUDY PROGRAM

Caldwell Community College and Technical Institute participates in the College Work-Study Program which provides on campus work opportunity for students needing financial assistance to attend school. Work is available for students to assist in the library, faculty and administrative offices, bookstore, laboratories, shops, and building maintenance. Students working under this program are paid in cash monthly for the work performed.

OTHER AGENCIES AND RESOURCES

Caldwell Community College and Technical Institute serves as a referral and information agency for the following resources:

A. Veterans Benefits
B. Social Security Agency
C. Department of Public Welfare
D. Various North Carolina Agencies

VETERANS EDUCATION BENEFITS

Caldwell Community College and Technical Institute is approved by the Veterans Administration for students who are eligible under the law. Eligible persons for benefits are urged to take advantage of the guidance service and educational facilities of the College. Veterans and dependents or students who expect to enroll under the War Orphans Educational Assistance Act should contact their Veterans Service Office in advance of registration.

STUDENT SERVICES

GENERAL PHILOSOPHY

Caldwell Community College and Technical Institute clearly recognizes the importance of self-understanding and personal growth in each student as well as his intellectual and social development. The College's program of counseling and guidance has been developed within the context of this philosophy.

Student services deal with the various types of student assistance, including admissions, counseling, guidance, orientation, curriculum placement, supervision and assistance in planning extra-curricular activities, part-time employment, financial aid, student government, graduate placement, school publications, and referral sources.

Guidance, broadly conceived, is reflected through faculty-student relationships, through organized counseling services and through extracurricular activities.

COUNSELING AND TESTING SERVICE

Counseling

Opportunity for counseling services is made available to every student enrolled in Caldwell Community College and Technical Institute. Counseling services are available for the discussion of personal problems affecting the satisfactory progress of the student in his chosen curriculum, for the discussion of his educational progress and for the discussion of work or study habits.

Each student is also assigned a faculty advisor to whom he may go for help. The full-time evening counselors serve as advisor for evening students.

Testing Service

Testing is provided at no cost to the students at CCC&TI. In addition to admissions tests, the testing program has tests available to measure aptitude, temperament, achievement, and vocational interest.

The Scholastic Aptitude Test (S.A.T.) required for entering college students is not controlled or administered by CCC&TI., but, by the Educational Testing Service in Princeton, New Jersey. Students needing the S.A.T. should understand that there is a charge for taking this test, and that they must see their counselor or one of the counselors at CCC&TI to secure information as to how they may make arrangements to take the S.A.T.

All students are encouraged to avail themselves of the testing services.

Community Counseling Service

Individuals of the community are invited to participate and use the counseling and guidance services available at Caldwell Community College and Technical Institute. Those individuals who feel they need assistance in the attainment of personal goals are invited to use this service. There is no charge for these services.

Faculty Advisor System

This program is a cooperative effort of the faculty and Student Affairs Office. At the time of enrollment, each student is assigned a faculty advisor. The main purpose of the advisor is to assist students in planning their programs and selecting courses so that appropriate progress will be realized. Each student is expected to be fully aware of his status in his program in relation to standards of the College.

Extracurricular Activities

Student participation in extracurricular activities is encouraged by the College. Each student organization is required to have a faculty advisor. The Student Government regulates all extracurricular activities.

Alumni Association

Preliminary plans have been made to establish an active alumni association at Caldwell Community College and Technical Institute. The first organizational meeting was held on June 5, 1969.

Student and Alumni Placement

The Placement Service is handled by a Student Affairs Counselor and is designed to assist all students in their search for either temporary or career job opportunities. This service seeks to develop and maintain relationships with local and national employers who are looking for qualified applicants, and schedules recruiting interviews on and off campus throughout the year. Students and alumni are encouraged to register and confer with this office as frequently as they desire whether or not they have immediate need for job placement services. There are no fees for this service.

Student Tutorial Program

Special assistance is available for students in all areas of study at the college. Tutors will be assigned to students needing assistance. There is no charge for this program. Students should contact their faculty advisor.

Student's Responsibility for Securing Special Help

It is the student's responsibility to seek extra help if needed. Instructors are available for conferences at regular scheduled office hours but will not require that a person come in for extra help. In all cases, an instructor will be more than willing to help, but it is up to the individual to ask for help.

Social Life

The Student Lounge is the social and recreational rallying point of "Caldwell students" for relaxation. Students and faculty meet informally to drink coffee between classes, especially at free periods, for refreshments and snacks or simply to chat with friends.

Students are allowed special rates at local bowling lanes, movies, swimming pools, community centers, etc. These activities are in addition to the regularly scheduled extracurricular activities of the College.

Honors

Each year many students receive various honors awarded by the faculty and student body of Caldwell Community College. Listed among the more important of these are students selected for Who's Who In American Junior Colleges, the quarterly Dean's List, graduation "With Honors," Miss C.C.C. and T.I., Christmas Queen, Editor of the yearbook, Editor of the newspaper, Officers of the Student Government and various clubs, special faculty "Honors" certificates to outstanding students, plus others.

DEVELOPMENTAL STUDIES PROGRAM

The Developmental Studies Program provides instruction in the areas of mathematics, algebra, and English. This program is designed for the student whose level of achievement at the time of admission may either prolong or prohibit success in the required courses of his curriculum choice. A student is recommended for this program and urged to enroll in either one or two areas, according to his deficiencies, if his high school record, entrance test scores, and/or information gained by interview should indicate the likelihood of difficulty with the curriculum for which he has applied.

DEVELOPMENTAL STUDIES PROGRAM CURRICULUM

ENG 091	GRAMMAR AND COMPOSITION	2-2-3*
MAT 090	DEVELOPMENTAL MATHEMATICS	2-3-3*
ALG 091	INTRODUCTORY ALGEBRA	2-3-3-*

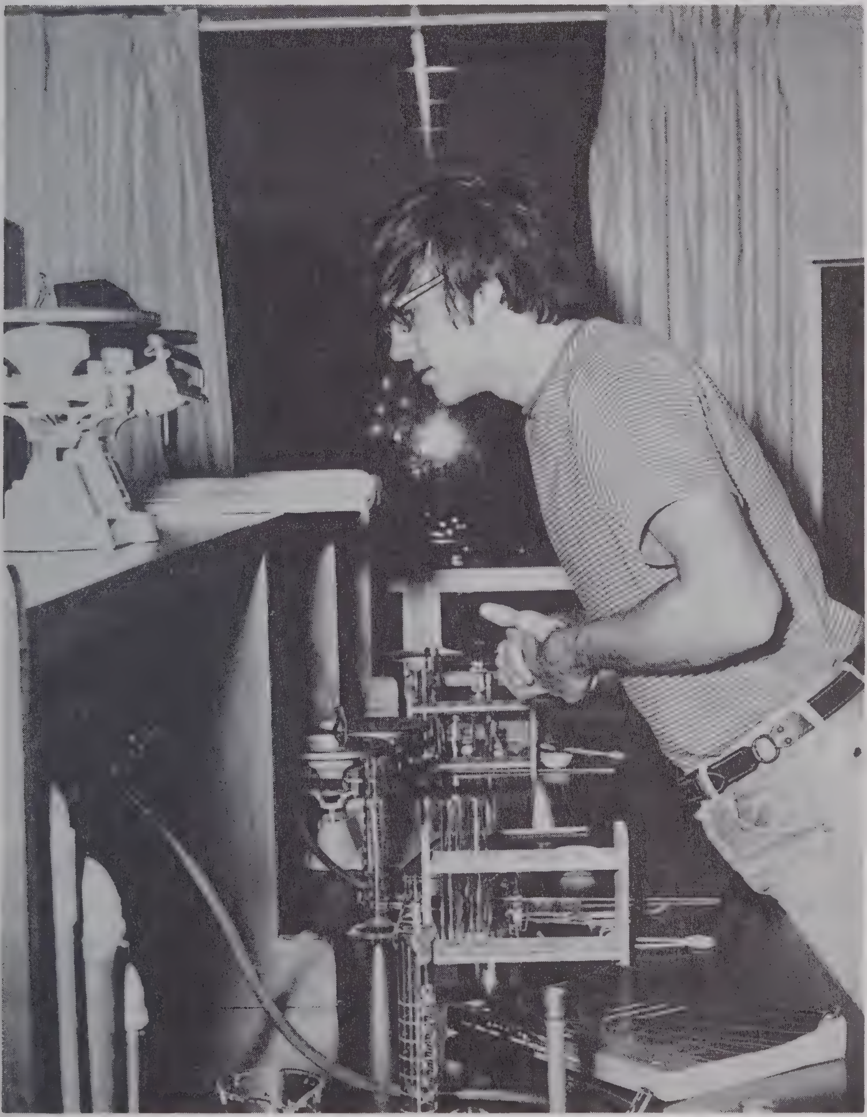
* Institutional Credit Only.

LEARNING RESOURCES CENTER

The purpose of the Learning Resources Center at Caldwell Community College and Technical Institute is to extend and support the established objectives of the total educational program. By making available a variety of materials which stimulate investigation the Learning Resources Center furthers the educational needs of the student body and the faculty.

The collection consists of approximately 16,000 books, 215 periodicals, 12 newspapers, recordings, microfilm, filmstrips, tapes, and the equipment necessary for their use.

The staff provides orientation and assistance in finding and using materials in the Learning Resource Center. Students are encouraged to use the facilities for relaxation, as well as for study, and to ask for help when they feel the need for it.



CONTINUING EDUCATION PROGRAMS

The Caldwell Community College and Technical Institute provides training in numerous subjects through its Continuing Education programs. Adult classes are held both at the college and at various locations throughout Caldwell and Watauga Counties. These classes are designed to prepare individuals for employment to upgrade workers already employed, and to enable adults to earn the high school equivalency diploma.

The Continuing Education department also serves area industries and public agencies by providing training for their employees. Training under this division of the college can be offered at any time a need for such training is established. Full details can be obtained by contacting the Dean of Continuing Education at the college. Counseling services are available.

Admission Requirements

Generally speaking any individual who is 18 years of age or whose high school class had graduated is eligible for admission to General Adult classes; applicants are usually admitted on the first come, first served basis. Some classes may have specific admissions requirements; in such cases the Dean of Continuing Education will inform applicants of these requirements.

Expenses

Many of the extension classes are offered without charge to the students; in other cases a small fee is charged to cover the cost of instructional supplies. Any charges should be paid at the first class session.

ADULT BASIC EDUCATION

Adult Basic Education is provided for men and women eighteen years of age and older not currently enrolled in a public school. Its purpose is to improve the economic and social standing of adults in the community. Persons enrolled may be learning to read and write, or they may review English, math, social studies, or science; however, the main objective of this program is to raise adults to the educational level required for attending the adult high school classes.

There are no charges for these courses. The books are furnished by Caldwell Community College and Technical Institute.

The courses are 11 weeks in duration. Classes are scheduled to meet two nights a week with most of the classes meeting three hours each night. A student may stay in Group I (grades 1-4) or in Group II (grades 5-8) as long as he or the instructor deems it necessary. Progression is mainly individual although they are in groups. These classes are held in Caldwell and Watauga counties on a continuing basis and interested persons should contact the Adult Education Director at Caldwell Community College and Technical Institute or any education official in the public schools.

ADULT HIGH SCHOOL DIPLOMA PROGRAM

The Adult High School Diploma program is not designed to compete with regular High School programs, but its primary purpose is to give mature adults who have less than a 12th grade education another opportunity to earn the High School Diploma. Students enrolled in public secondary schools are not eligible to enroll in the Adult High School program. Since Adult High School classes do not operate on a unit system, the adult student is not required to submit a transcript of High School records. However all adults regardless of the number of High School units previously earned, who enroll in the program must demonstrate proficiency in English, Math, Social Studies, and Science at the 12th grade level before they are recommended for the Adult High School Diploma.

Adult High School classes are offered in the evening program at Caldwell Community College and Technical Institute and at other locations in Caldwell and Watauga counties. These classes usually meet two nights weekly from 6-10 P.M. New classes begin in September, January, March and June.

When students make satisfactory scores on the four subject areas tests, they are recommended to the Board of Education in Caldwell or Watauga Counties to receive the Adult High School Diploma. Graduation Ceremonies will be held each year for the Adult Diploma.

CONTINUING EDUCATION COURSES

OCCUPATIONAL COURSES

ABC Shorthand—19-E54—This course is designed to teach students shorthand quickly and at the least expense. The objective of this course is to acquire enough speed to become a government stenographer or business secretary. College students and those who attend conferences or lectures will also find this course valuable.

Apprenticeship—22-E95—Students will work under the supervision of skilled craftsmen. This on-the-job training will prepare students to become skilled journeymen. In addition to this training, students will receive 144 hours per year of classroom instruction.

Antique Finishing—21-E89—Students will learn how to refinish scratched or non-descript pieces of furniture to achieve an antique look. Classes will cover the cleaning and priming of the piece of furniture, its first painting, and the final overtone.

Auto Body Repair—21-E71—Students will learn how to hammer our dents in automobile bodies, and repair any interior damage to the trim. Introduction will include units on reading and interpreting blueprints, chart instruction, service manual instruction, and wiring diagram interpretation.

Auto Mechanics—21-E71—This course is designed to teach the use of different kinds of tune-up equipment. Emphasis is placed on learning to use the several units of the tune-up tester. The student will learn to diagnose malfunctions in ignition systems, cranking motors, and charging circuits.

Aviation—20-E69—This course provides a ground school for pilot training in aircraft, power plants, radio, navigation, traffic control, weather and the amended Federal Aviation Regulations. Class work will prepare students to pass the Federal Aviation exam.

Bookkeeping—19-E50—Students will learn the fundamentals of double-entry record keeping as it is used in modern business. The keeping of systematic records of business transactions, journals, records, and statements illustrate a bookkeeping cycle and is also part of the course.

Brick Masonry—21-E75—This course teaches the basic fundamentals of brick laying, including the mixing of mortar, the use of the trowel and level, the building of cavity walls and corners, and the basic fireplace construction.

Business Law—19-E59—This is a practical course designed to provide the student with an understanding of law and the legal framework that has grown up around contracts, debts and credits, and property laws. Those who are planning to start a business or who often engage in business transactions will find it particularly helpful.

Cashier Checker Training—1602-E29—This ten week course is designed to teach students how to use the cash register, bagging techniques, good grooming, and proper courtesy to customers. There are three days of practice assignments with the cash register, problems with customers and explanation of store policies. These techniques may be used in supermarkets, drug, variety and department stores.

Communication with Children for Parents—17-E39—This course is designed to help parents and teachers communicate better with children. Particular interest of the group will be pursued as well as discussion on the social, emotional, and adjustment problems of young people entering puberty.

Computer Systems (Basic)—19-E51—This is an introductory course in computers for the student who plans to pursue a degree in data processing as well as the student who desires a general, non-technical knowledge of terminology and concepts.

Cost Accounting for Managers—18-E59—This course is designed to help the production manager become acquainted with costs in operating his department. Some of the areas to be covered include general cost accounting, direct manufacturing costs, direct sales costs, direct and indirect labor costs, manufacturing overhead, cost of sales, cost of operations, ratios of costs to sales, and profit and loss statements.

Data Processing (Basic)—19-E51—This course is designed for students not in the data processing curriculum who wish to understand the computers place as a tool in the business world. Classes will cover the historical background of the computer, how they function, how they are programmed, and the fundamental elements within the various input and output devices. The application of computers within our society will also be covered.

Drafting/Blueprinting—21-E78—This course will teach students to read and interpret blueprints and specifications common to the building trade. Students will develop proficiency in making three view and pictorial sketches.

Electrical Controls—20-E63—This course is a study of modern methods of controlling machinery by electronic circuitry. The electronic mechanism that automatically operates machines also will be studied.

Financial Planning (Basic)—19-E59—This course is designed to teach the consumer about his finance in society. Classes will cover family finances, the financial pros and cons fo a working wife, children and allowances, sources and uses of consumer credit and credit cards, home-ownership versus renting and insurance. This is not a home-budgeting course

Firemanship Training—21-E82—These courses are designed to teach local county fire departments new methods of firefighting. These classes will cover an introduction to firefighting; the use of firefighting apparatus; protecting breathing devices, ladder, hose, and rope practices; ventilation practices; salvage and overhand practices; and forcible entry. Classes are held at the local fire departments.

Food Preparations—18-E43—This class is designed to train students in the art and science of quantity food preparation with particular emphasis on institutional food service. The student will also study how to give their meals the gourmet touch by means of subtle flavorings, herbs, and spices.

Food Service—21-E42—This course concerns itself with commercial food preparation and service areas. This covers food service selling, basic quantity cooking, food and beverage purchasing, food and beverage management and service, and food and beverage controls. Approximately 230 hours of class time is required to complete these courses. In addition, four courses in school food service are offered. These classes include an overview of school food service, nutrition and menu planning, equipment use and care, and quantity food production management.

Furniture Refinishing—21-E88—This is a basic course in repairing and refinishing of furniture. Students will learn to remake damaged or inferior furniture, remove old finish or discolorations, and apply new varieties of finishes.

Gun Reloading—21-E80—This is a basic course in reloading firearms. The class will study safety precautions, powder weights, charges, and bullet molding.

Home Management and Finance—16-E21—This basic course will cover how to keep more of one's salary, making the most of borrowed money, handling daily expenses, examining the cost of automobiles and life insurance, and the principles of home ownership. "Moonlighting," how to keep efficient income tax records, and how much to save will also be covered.

Horse Care and Management—15-E19—This is a basic course designed to teach horse owners to care properly for their animals. The classes will cover such aspects of horse ownership as: nutrition; care and management; young and old horses; training and housing. Special medical problems such as breeding, lameness and colic will also be discussed. The training of Western and Eastern horses, the showing of horses, the characteristics of different breeds of horses, and the shoeing of horses will be the four special units.

Horse Shoeing—25-E89—Students will learn the anatomical structure of the horse's feet, and the proper techniques of general hoof trimming. The selection and fitting of shoes will also be covered. This course is ideal for new horse owners who wish to care for their own animals.

Hospital Management—17-E39—This series of sessions covers the supervisory areas of human relations, leadership, job methods, training subordinates, and performance evaluation.

Hospital Training—17-E39—These courses are designed for people in supervisory areas. They include courses on human relations, hospital housekeeping, food service supervision, custodial training, and modified diets.

Hospitality Education—16-E25—This section will cover training in food services, the hotel-motel industry, tourist and travel industry, and hospital training.

Interior Decorating—18-E45—This is a basic course designed to teach students how to plan their own room exteriors with color coordination, furniture layout, and styling for contemporary or traditional homes. Choice of lighting, floor and wall coverings, electrical appliances, fixtures, and accessories will also be covered.

Investments in Stocks and Bonds—19-E59—This basic course covers what a beginning investor needs to know about investing in stocks and bonds. Common stock, and preferred stock, bonds, mutual funds, and their related buying and selling processes are covered. The process of how the New York Stock Exchange works, and how the over-the-counter sales process works will also be covered.

Kiln Drying—21-E89—This course will cover the seasoning of lumber, proper methods for kiln drying, and the different types of lumber drying kilns.

Management Primer—21-E79—This course is designed as an introduction to managerial thinking. The ten parts covered in this course are: management and productivity, enterprise organization, human relations in management, personnel administration, controls and supervision, productive management, procurement and inventory, financial management, distortion and sales, and research and the public relations.

Offset Duplication Skills—19-E52—This is a basic course in the techniques of offset printing, operation of the offset press, duplication, connection in offset presswork, and basic shop safety.

Oil Circulator Repair—21-E89—This is a basic course designed to teach students how to repair pump and pressure type oil circulators. Students will learn to determine the source of the trouble in the burner and repair or replace worn or damaged parts.

Power Sewing—21-E89—This course will involve the use of industrial sewing machines used in the needle trades. Single and double needle, covering stitch, Merrow, blind stitch, zig-zag operation, button sewing, buttonhole making, and looping are all taught. Seamstresses and advanced beginners may be particularly interested in this course.

Real Estate—1601-E27—A basic course in the operation and administration of real estate business, the classes will cover licensing laws, marketing, methods of appraisal, financing, developing and subdividing, sources and types of loan and the real property laws.

Sewing Machine Repair—21-E89—This course is designed to teach students to repair modern sewing machines. The classes will include theoretical instruction and practical experience involving the repair of the machines.

Sign Language—21-E39—This course is designed to teach students to communicate effectively using sign language. The hand signs for each letter of the alphabet, numbers, and some words will be taught.

Small Electrical Appliance Repair—20-E63—This course covers the fundamentals of repairing household appliances such as steam and dry irons, toasters, percolators, low and high resistance appliances, and normal and abnormal operation of appliances. Methods of testing appliances will be included in this course.

Small Engine Repair—21-E86—This basic course is designed to teach students to repair small, four-cycle, air-cooled engines. This class will study ignition systems, carburetors, and engine repair. Tune-ups of such machines as tillers and lawnmowers will be reviewed.

MDP Program—Management Development Program—21-E79—This program is a series of courses designed to upgrade the competency of management level personnel. Successful completion of 5 management development courses and no fewer than 150 classroom hours will lead to the MDT diploma. Tuition is free, but there will be a small charge for books, materials, and supplies. Detailed information may be obtained by calling the college.

Ten-Key Printing Calculators—21-E52—This course covers the basic principles of operating the ten-key printing calculators and adding machines. The arithmetic fundamentals of addition, subtraction, multiplication, and division will be emphasized. Mark-up and percentage problems will also be reviewed.

Tourist and Travel Industry—21-E25—These courses are designed for people in the service industries who wish to improve their selling techniques and their promotion of tourism. The four courses offered are: travel information, service station selling, personality development, and customer relations.

TV and Radio Repair (Basic)—21-E76—This course is designed to teach students the fundamentals of repair work including the changing of tubes, the checking of voltage, and the repairing of faulty wiring will be covered. Students will learn to detect simple repair problems and make the adjustments at home.

Upholstery—21-E89—This course offers practice in upholstering loose cushion sofas and chairs; inside and outside upholstery; application of skirts and trims; upholstery of traditional furniture; and hand-tufting and piping.

Upholstery for Homemakers—21-E89—This course is designed for homemakers who want to learn to recover and refinish their own furniture.

Welding—21-E80—This basic course in welding will cover the fundamentals of the electric arc, oxyacetyline, inert gas welding of low-carbon steel, and the use of basic welding equipment. Most of the class time will be spent in the laboratory developing manipulative skills.

Woodwork—21-E88—This course is designed to teach students to use hand and power tools with expertise. Students will learn to select appropriate designs to be carved in wood, and acquire the basic skills of building with wood by planning, sawing, smoothing, squaring, chiseling, and boring.

OTHER GENERAL INTEREST COURSES

Advancement Laboratory—25-A45—This program's offerings are designed to supplement many realms of education. Students who wish to complete their high school education to gain a high school diploma may do so through this program. The Advancement Lab also offers instruction for those who wish to pursue a particular interest, or to supplement their college class work in English and math, or to obtain transfer credit for a high school or college program. Students interested in taking high school equivalency courses will be administered placement inventories to determine their levels of proficiency. (See page ______)

Art I—25-A18—This course is a study of freehand, black and white drawing of shapes, shades, and shadows, with perspective overlapping forms in charcoal.

Art II—25-A18—This course covers the oils, water colors, charcoal, and chalk media. Sketching special designs and painting techniques at various levels of achievement will also be reviewed.

Being Helpful in a Crisis Situation—25-A33—This course is designed to teach people to respond to friends in need. Various family crisis situations will be discussed including marital problems, parent-child relationships, illness, death, physical handicaps, emotional problems, and suicide.

Cake Decorating—25-A36—Students will learn to decorate all types of cakes including cupcakes, one and two layer cakes, and special occasion cakes. However, each student will be expected to buy the basic decorating kit costing approximately nine dollars. There is no charge for the course itself. Enrollment is limited to 15 students.

Calculus (Basic)—25-A06—This basic course will include the study of the theory and procedures in differential and integral calculus. Students will learn numerous theorems to understand the techniques in differentiation and integration systems.

Ceramics—25-A18—Students will learn to paint unfinished ceramic forms (greenware) with various kinds of glazes. Instruction will cover use of crystal clear and gloss glaze.

Civil Service Preparation—25-A27—This course will prepare students to pass civil service examination offered by city, state, and federal governments. There will be an intense review of basic math and verbal skills. The classes also cover application procedures for these tests.

Conversational German—25-A42—This basic course is designed for students who understand little or no German. Classes will cover German pronunciation, grammar and conversation. The classes will be primarily conducted in German. By the end of the course, students will be able to carry on a simple conversation.

Copper Enameling—25-A18—This course teaches the student how to decorate copper forms with powdered glass to create ornamental bowls, trays, boxes, and jewelry. Decorated pieces are fired in a kiln to melt the glass on the copper forms.

Human Relations—25-A27—This course is designed to teach correctional officers in the North Carolina Department of Correction a better understanding of the part played by the inmate, staff, and correctional system in the rehabilatative process. First, emphasis is placed on the inmate-causes and types of abnormal behavior, and methods of treatment. Secondary emphasis is placed upon the staff and their attitudes toward rehabilitation and self evaluation.

Income Tax—25-A15—This course is designed to teach students the most economical method for filing federal and state income. It covers recent changes in the federal law, and allowable deducations, as well as general tax information. Practical experience in filling out tax forms, and working out tax problems will be included.

Jewelry Making—25-A18—Students will learn to make their own jewelry in this basic course. The techniques of silver soldering, use of fine abrasives, and proper gem setting fundamentals will be taught. Students will work on individual projects from suggested designs.

Judo—25-A33—This is a course designed to teach beginners to art of judo. The terminology, skills, and safety practices will be covered. Students should remember that judo is a sport, and emphasis is placed on the perfected techniques shown in competition, not the ability to maim one's opponent.

Karate—25-A33—This is a basic course in the art of Karate. Classes will cover the terminology of the sport, and the various skills and techniques. Much of the class time will be practice sessions.

Leathercrafts—25-A18—The art of creating articles from leather is taught in this basic course. Group and individual instruction is given in tooling, stamping, carving, and other leathercraft processes. Students can create decorative billfolds, key containers, book covers, desk sets, moccasins, and belts.

Music Appreciation—25-A33—This basic course will introduce students to some of the major musical works. The classes will emphasize simple forms, instrumentation, athletics, masterpieces, and other significant works.

New Math for Parents—25-A06—This course is an introduction to the basic principals and concepts of the new math as it is begin taught in area elementary schools.

Patterns for Retirement—25-A15—This course is designed to inform retirees, and those nearing retirement, of the problems they may face including loneliness, unsufficient retirement income, homes for retirees, and illness. Discussion should provide some solutions.

Personal Typing I—25-A09—This basic course is an introduction to the touch typewriting system with the emphasis on correct techniques and mastery of the keyboard. Students will practice simple business correspondence, tabulation, and manuscripts.

Personal Typing II—25-A09—This advanced course will concentrate on improving the student's form and speed. As a continuation of basic personal typing, the course instruction assumes that students are familiar with the home keys and typewriting techniques.

Personality Development—25-A33—This course will teach students the basics of proper poise, dress, make-up, and techniques for greeting the public. The course will be particularly beneficial to people engaged in sales, working in banks, and building and loan associations.

Photography I—25-A18—This course is designed to teach the beginning photographer the fundamental photographic process: cameras, film, chemicals, laboratory techniques, composition, print and transparencies. Students will learn by doing.

Photography II—25-A18—This course is for those who wish to improve their camera techniques. Students will study the operation of the camera and other equipment. The proper techniques for the use of the dark room for developing, printing and enlarging will be reviewed. Movie-making and the production of color or black and white slides will also be included. Photo-flash and Photo-flood lighting will be used in most sessions. Students must bring their own camera kits.

Photography III—25-A18—This course is for students who already have knowledge of camera techniques, but wish to take more creative pictures.

Physical Fitness—25-A33—This class stresses the importance of physical fitness. Each student will practice many exercises and select several for a personal program.

Portrait Photography—25-A18—Students will learn to personalize their subjects by proper use of lighting, composition, and camera angle. Classes will cover negative retouching, photographic painting with oils, and the proper use of dyes in spotting prints. Students should already have some knowledge of photography.

Copper Tooling—25-A18—The art of imbedding designs on thin sheets of copper will be taught in this ten-week course. Students will learn how to select proper designs, push the designs into the copper sheet, and "finish" the tooled copper with either clay, metal fill, or paint. Ornamental plaques, wastebaskets, book ends, and magazine racks are popular products.

Creative Arts for the Home—25-A18—This is a survey course designed to teach students to create their own home accessories. Students will work with clay, paper mache, painting, fabric, and wood.

Creative Oil Painting—25-A18—This course covers the techniques of painting landscape and still life pictures in oil on canvas. Students will learn to stretch their own canvases. Each student must supply his own oil colors, brushes, and canvas.

Creative Writing—25-A42—This course is designed for students who want to improve their own writing ability. Classes will study grammar, biography, autobiography, short stories, journalism, poetry, the novel, dramas, the formal essay, and effective letters. Students will contribute their own work in several of these categories.

Decoupage—25-A18—This course is designed to teach students the art of embedding paper patterns in smooth varnish on the surface of wooden articles. Students will learn to decorate purses, trays, plaques, jewelry boxes, and carvings.

Driver Education—25-A43—The basic course is designed to teach students traffic laws and give them several hours of driving practice. The classes will concentrate on the basic manuvers of driving, what to do in emergencies, and routine safety precautions when driving or walking. Each student will receive 18 hours of on-the-road observation and driving experience. There is a fee of $16 for this course.

Drug Use and Abuse—25-A39—This course covers the social and psychological effects of drug use and abuse. The study will include descriptions of all categories of drugs, how and why they are used and abused, and treatment and prevention of drug abuse.

Effective Reading—25-A42—This course is designed to improve the reading rate and techniques of the average or better-than-average student. Filmed stories and exercises are shown to accelerate and improve the student's reading ability. Most people improve their reading ability from 50 to 100 percent.

Financial Planning—25-A15—From this course students will gain an understanding of the functions of banks, insurance companies, and the stock market. Other forms of investment management will be reviewed.

First Aid—25-A33—This course will cover the basic skills of applying first aid to the injured. Students will learn to apply bandages, tourniquets, temporary splints, and care of eye and burn injuries. The proper administration of artificial respiration, and the proper storage of medicines will also be taught.

Flower Arranging—25-A36—This is a basic course designed to teach students the fundamentals and mechanics of floral arrangements. Students must supply their own flowers, containers, and other necessary materials.

Gemology—25-A18—Students will learn gem history, terminology, prices, locations, and modern methods of gem identification for faceted stones. The proper angles of cutting gem stones and methods of faceting a round brilliant stone will also be discussed.

Great Decisions—25-A12—This course is a unique, nonpartisan discussion program sponsored nationally by the Foreign Policy Association. The classes will focus on public debates of the pros and cons of eight important foreign policy issues facing the United States. The topics are new each year. This course is offered in the winter quarter.

Guitar—25-A18—This is a three quarter course designed to teach beginners to develop their own style of playing the guitar. The first quarter course will cover reading music in the key of C and exercises in the major chords. The second and third quarter courses are for intermediate and advanced students. Students will be introduced to classical, blues, folk, flamingo, jazz, pop, and country styles. Each student must bring his own guitar.

History of Caldwell County—25-A06—This course covers the history of Caldwell County from the time of the Indians to the 20th century. The effects of the American Revolution, the War Between the States, and the Reconstruction Period will be studied.

Home Nursing—25-A33—This course is designed to teach homemakers the techniques of safe, adequate, and efficient care of the sick members of their families. Emphasis is placed on rehabilitation, long term illness, self-help, and caring for the aged. Red Cross certificates are issued.

Portraiture—25-A18—This course will emphasize freehand drawing of portraits in charcoal, crayon, pastels, and oils.

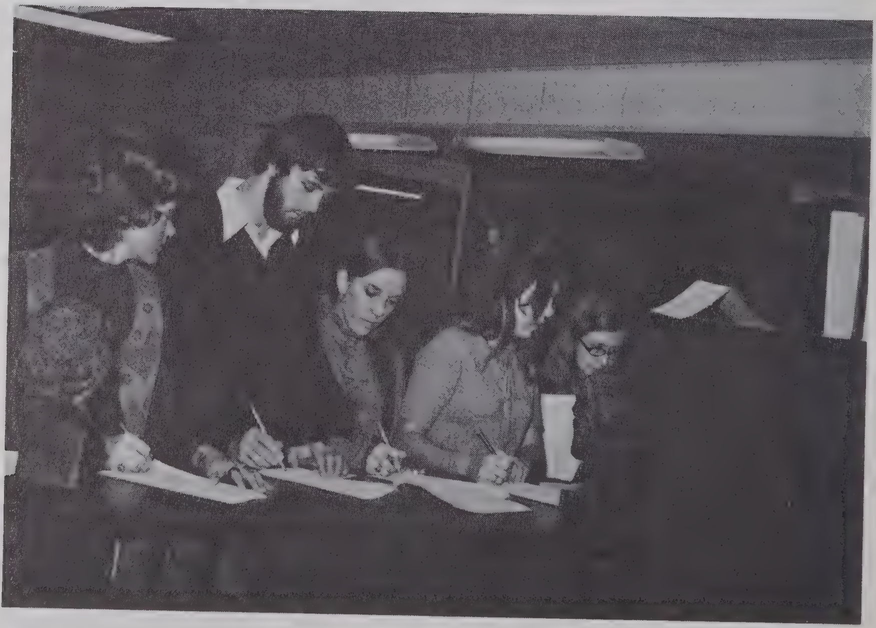
Powderpuff Mechanics—25-A39—This course is designed to teach the non-mechanically minded some knowledge about cars. Students will learn to make minor adjustments, convey meaningful information, and do preventive maintainance.

Sewing I—25-A36—This course is designed to teach non-sewers to construct a simple garment from a pattern. Students will learn to select a proper fabric and pattern, to cut out the garment from the pattern, to operate the sewing machine correctly, and to apply proper finishing techniques.

Sewing II—25-A36—Further development of skill in clothing construction techniques.

Sewing III—25-A36—(Tailoring) This course teaches the fundamentals of garment tailoring. Students will learn the use and development of basic pattern selections, the use of commercial patterns, garment construction, remodeling, fitting, pressing, and finishing.

Square Dancing—25-A33—This course is an introduction to square dancing. Students will learn the basic figures for large and small circles, the swings, the steps, and "do-si-do."



ADVANCEMENT LABORATORY

The purposes of the Caldwell Community College and Technical Institute Advancement Laboratory are as follows: to provide necessary materials and facilities to help adults prepare for the high school equivalency examination, to administer the high school equivalency examination, to help students and adults gain educational improvement of their own choosing, and to help students remedy academic deficiencies.

The following pages comprise a list of the courses presently offered in the advancement lab with a brief description of each course. The initials "A.C.T." found in parentheses at the end of each course description, represent the words "approximate completion time." It should be kept in mind that these figures are only estimates for the average student and that each student will function best at his own rate; therefore, it is impossible to determine the exact time necessary for an individual to complete any given course. New courses of study are added regularly.

The only necessary materials an applicant need furnish are pencil and paper, and the only requirement is that he be at least sixteen years old.

COURSE OFFERINGS

BUSINESS

Course **Description**

Business Mathematics—This is a series of four courses made up of the following:

1. Fundamentals of Business Mathematics.
2. Interest, Negotiable Instruments, and Payroll Mathematics.
3. Business Mathematics in Management Decisions.
4. Mathematics of Accounting and Finance. (A.C.T. complete—75 hours)

Basic Filing—A short course designed on the alphabetic system of filing. (A.C.T.—15 hours)

Stenospeed—An "ABC" shorthand. Dictation is given on tape. (A.C.T.—45 hours hours

Bookkeeping (Temac)—A basic course for the beginner, written on a high school level. (A.C.T.—20 hours)

The Accounting Process—A fundamental course in the principles of accounting. (A.C.T.—12 hours)

Effective Executive Practices—Effective Decision Making—Introduces the student to those scientific or rational processes of decision-making that a manager can use to augment his experience and intuition. (A.C.T.—7 hours)

Effective Secretarial Practices—Designed to develop and improve various secretarial skills. (A.C.T.—10 hours)

Accounting, Volume I and II—Two quarter course for the undergraduate student of business administration.

Leadership Skills Series

- **Setting Your Leadership Goals**—Teach managers. (A.C.T.—2 hours)

Application of Value Analysis/engineering skills—(A.C.T.—3 hours)

How to Improve Your Supervisory Cost Reduction Skills—(A.C.T.—3 hours)

Management Skills Series

- **Improving Your Written Communications**—(A.C.T.—6 hours)
- **Understanding Public Relations**—(A.C.T.—4 hours)
- **How to Improve Your Supervisory Training Skills**—(A.C.T.—5 hours)

COMPUTER-RELATED PROGRAMS

Course **Description**

Introduction to Fortran—The objective of this program is to provide the knowledge and some of the skills required to write computer programs using the FORTRAN system.

Introduction to Data Processing—To provide students with a means of self-review of the techniques and ideas most often presented in introductory courses in business data processing.

PL/1 for Programmers—Fit requirements of a progressive computer science education program.

Computers and Problem Solving—Explain the fundamentals of computing and show how computers can be used to solve problems in a wide variety of application areas.

Basic Fortran IV Programming—Course for the beginner who wishes to familiarize himself with the fundamentals of computer programming.

Basic PL/1 Programming—Introduce the reader to the fundamentals of PL/1.

Basic COBOL Programming—To familiarize the student with the fundamentals of computer programming.

Data Processing—Dedicated toward improving the background and knowledge of the programmer by emphasizing better instruction in the basics and using improved educational techniques.
Volume I
Volume II
Volume III

ENGLISH

Course **Description**

2200, 2600, 3200—A series comprising a complete grammar program that covers seventh grade through high school level. The student is placed in one of the three courses depending on which his need might be. (A.C.T. for each—45 hours)

Programmed English—A complete freshman college level grammar course. (A.C.T.—50 hours)

300 Commas—A short course in the proper use of commas. (A.C.T.—8 hours)

Lessons for Self-Instruction in Basic Skills—A series made up of short courses in areas that tend to give problems in grammar. The short courses include:

1. Capitalization.
2. Punctuation.
3. Sentence Patterns.
4. Verbs, Number, and Case. (A.C.T. for each course—5 hours)

Spelling—An elementary spelling course, including basic spelling rules and procedures for using the dictionary. (A.C.T.—25 hours)

Words—A basic course in vocabulary development, written on a junior high school level. (A.C.T.—15 hours)

Vocabulary for College—Course designed primarily to help the student read better. Provides a recognition vocabulary.

Steps to Reading Literature

Effective Business Letters (A-T)—Designed to improve performance in letter writing quickly and effectively. (A.C.T.—5 hours)

Basic Communications Skills (A-T)—Designed to help anyone who desires to improve his communications with others. (A.C.T.—12 hours)
Volume I Communications Theory, A Modular Approach
Volume II Oral Communications
Volume III Written Communications

Spelling Improvement—An adult level text which includes background of the inherent difficulties of the English language and its written expression, as well as rules for spelling. (A.C.T.—15 hours)

Programmed Review of English—Developed primarily to help the student who cannot write themes and essays, term papers, etc. without extensive revision or professional assistance.

Spelling 1500: A Program

Sounds of English—Combining phonics and linguistic practice for improving reading, speaking, spelling, and listening skills. (A.C.T.—5 hours)

Wordcraft 1 and 2—Rapid vocabulary building.

Spelling Improvement Series—Spelling improvement program geared to the high school student.

Building Basic English, Set B, Phonics—

Vocabulary Builder Program
- Set I Basic
- Set II Intermediate
- Set III Advanced

FOREIGN LANGUAGE

Course **Description**

Programmed French—A French reading and writing course, teaching an active vocabulary of over 1600 words and a passive vocabulary of 900 more words. (A.C.T.—90 hours)

Basic German—A basic reading course, carrying the student through most of the verb tenses. The phonetic vocabulary is taught on tape. (A.C.T.—50 hours) hours)

Basic Spanish—An extensive course in reading and writing, with the phonetic vocabulary taught on tape. (A.C.T.—180 hours)

Talking Dictionary Series: Spanish

Talking Dictionary Series: German

GENERAL INTEREST

Course **Description**

The Analysis of Behavior—A survey of terms and concepts applied in a study of animal behavior. (A.C.T.—12 hours)

Your Study Skills—A simple approach to the problem of learning how to study. (A.C.T.—4 hours)

Interior Decoration—Teaches the application of the basic decorating principles to the art elements of line, form, color, and texture in achieving a harmonious room.

Learning Through Association—Means to faster learning and longer retention. (A.C.T.—3 hours)

Effective Study Methods—Incorporates concurrent use of workbook in teaching accepted study skills. (A.C.T.—2 hours)

Effective Listening—

The Smile of Success—Designed to promote personal development and career success.

Techniques of Study—

READING

COMPREHENSIVE READING

Course **Description**

Reading Laboratories—Programs designed to improve the student's ability to retain what he reads. Work is also done on vacabulary development and grammar usage with a resulting effect on spelling. The course covers all grade levels.

Reading for Understanding—A reading course designed to develop or redevelop concentration processes. This program is especially helpful to students who have been out of school for an extended length of time.

Effective Reading—The course is designed to give the participants an opportunity to achieve a higher level of reading speed, while maintaining or improving their current rate of comprehension. (A.C.T.—8 hours)

Listening Your Way to Better Reading—Complete developmental reading program for sixth grade students through adult.

Study Skills Library
- Science
- Social Studies
- Reference Skills

SPEED READING

Course **Description**

Craig Reading Program—A program using a student-controlled machine to increase reading rate and eye coordination. A workbook is also used to insure that comprehension does not suffer with the increase in speed.

Reading Accelerator—A program using a device that is placed over a workbook. A slide moves down the page at a rate established by the student.

MATHEMATICS

Course **Description**

Univox Arithmetic—This course is written at a very elementary level, with emphasis on the four basic operations. (A.C.T.—25 hours)

Multiplication and Division (T.M.I.)—This is an elementary course in the two basic operations mentioned (A.C.T.—20 hours)

A.S.M.D. (B.R.L.)—This is also a basic course in the four arithmetic operations, with one book devoted to each operation. (A.C.T.—8 hours per book)

Basic Math (Temac)—This is an extensive course in the basic math processes, fractions, percents, and decimals, with emphasis on both theory and application. (A.C.T.—150 hours)

Basic Math Measurement—This program works with the more common mathematical measurements, including those related to geometric figures. (A.C.T.—30 hours)

Seventh-Grade Mathematics—This program is much like the "Basic Math" course mentioned above, but it is written on a higher reading level. It also carries the student completely through high school general math. (A.C.T.—130 hours)

Fractions (Tutor Text)—This is a very thorough program in both the theory and application of fractions. It is written on a relatively-high reading level. (A.C.T.—12 hours)

Decimal Numbers (T.M.I.)—This is a two-volume, elementary program in decimal numbers. (A.C.T.—20 hours)

Computing Square Roots—This is a short, efficient method for teaching the theory and application of square roots. (A.C.T.—3 hours)

Introduction to Probability—This program supplies a simple method for learning an interesting subject. (A.C.T.—2 hours)

Lessons for Self-Instruction in Basic Skills—This is a series of short courses, including units on addition, subtraction, multiplication, and division. Work is done with whole numbers, fractions, decimals, and percents. (A.C.T.—4 hours for each unit)

An Introduction to Verbal Problems in Algebra (Temac)—This is a basic, introductory course and requires only a basic understanding of algebra. (A.C.T—20 hours)

Algebra I and Algebra II (Temac)—These are extensive programs parallel with the ones taught in the public schools. When a student completes these courses, he is prepared for college algebra. (A.C.T.—150 each)

Plane Geometry (Temac)—This is a very thorough program, requiring some background in algebra as a prerequisite. (A.C.T.—80 hours)

Solid Geometry (Temac)—A complete course requiring plane geometry as a prerequisite. (A.C.T.—50 hours)

Trigonometry (Temac)—A college-level trig course requiring a good background in algebra. (A.C.T.—80 hours)

Analytic Trigonometry (Temac)—A course using trig functions and the field of complex numbers. (A.C.T.—80 hours)

Introductory Calculus—This course goes into both differential and integral calculus. (A.C.T.—50 hours)

Practical Mathematics (Tutor Text)—A practical application of algebra is taught for business; technical, and laboratory situations, as well as for everyday use. (A.C.T.—15 hours)

The Slide Rule (Tutor Text)—A thorough course on the mechanics of the slide rule as well as practical applications. It covers up the log-log scales. A good foundation in math is needed for this course. (A.C.T.—15 hours)

Logarithms—A short course dealing with four-place logarithms, antilogs, multiplication, division, raising to powers, finding roots, and problems involving all operations. (A.C.T.—6 hours)

Introduction to Modern Math (Behavioral Research)—Introductory course to the concepts involved in the new approach to learning math.

Modern Mathematics for the Junior High School (Temac)—A four-volume course presenting the "new" or "modern" math on a junior high level. (A.C.T.—120 hours)

Modern Algebra (Temac)—A six-unit, modern approach to traditional algebra. (A.C.T.—150 hours)

Algebra, Semester 1, Volume I
Volume II
Volume III (A.C.T.—50 hours)

Fractions—The course starts with the development of the concept of fractions, and covers the four fundamental operations applied to fractions and mixed numbers. (A.C.T.—15 hours)

Percentages—The course begins with the relationship of percent and common fractions and proceeds to the practical application of percentages in personal and business problems. (A.C.T.—15 hours)

Slide Rule Fundamentals—Teaches A, B, C, D, and K scales and their use.
Part I
Part II (A.C.T.—15 hours)

Algebra Programmed: Part I
Part II

SCIENCE

Course **Description**

Biology and Chemistry—A high school level science course covering the subjects in general terms. There are no actual laboratory experiments. (A.C.T.—40 hours)

Work and Machines—A high school level physics course. There are no actual experiments. (A.C.T.—20 hours)

Measurements, Meteorology, and Astronomy—A course offering the essentials in each area. (A.C.T.—40 hours)

Sound, Light, Electricity, and Communication—A course offering the essentials in each area mentioned. (A.C.T.—40 hours)

Vectors—A physics course requiring only a basic knowledge of algebra as a prerequisite. (A.C.T.—12 hours)

Principles of Chemistry—An extremely thorough, theory-oriented, freshman college level course. No lab work is involved. (A.C.T.—180 hours)

SOCIAL STUDIES

Course **Description**

Geography of the U. S. (Univox)—A short, elementary course used mostly with students who have reading difficulties. (A.C.T.—15 hours)

Geography of the U. S. (B.R.L.)—A complete course with extensive map study. (A.C.T.—40 hours)

History of the United States—Covers general U. S. history from the early explorers through the present. (A.C.T.—20 hours)

How a Bill Becomes a Law—A government-related course touching almost every phase of the process of a bill becoming a law and other congressional-related topics. (A.C.T.—15 hours)

The Constitution—A course dealing with the Constitution from its historical background to the most recent amendments. (A.C.T.—15 hours)

TRAINING FOR NEW AND EXPANDING INDUSTRIES

One of the basic objectives of Caldwell Community College and Technical Institute is to stimulate the creation of more challenging and rewarding jobs for the people of our area by providing a customized training service to new and expanding industries. Subject to only minimal limitations, this institution, in cooperation with the Industrial Services Division of the State Department of Community Colleges, will design and administer a special program for training the production manpower required by any new or expanding industry creating new job opportunities in North Carolina."

"This program includes the following services:

1. Consultation in determining job descriptions; defining areas of training; and in prescribing appropriate course outlines, training schedules, and materials.
2. Selecting and training of instructors. These instructors may be recruited from the company and from outside sources.
3. Payment of instructors' wages for the duration of the training program.
4. Provision of suitable space for a temporary training facility

prior to the completion of the new plant, should such temporary space be required. This may be space with Norcaro Technical Institute or leased space in the community.

5. Assumption of installation costs of equipment in the temporary training facility.
6. Payment for one-half the cost of nonsalvageable materials expended in the training program."

"The purpose of this service is to help a new or expanding industry meet its immediate manpower needs and to encourage each industry to develop a long-range training program of its own to satisfy its continuing replacement and retraining needs."

COURSES OF STUDY

CALDWELL COMMUNITY COLLEGE AND TECHNICAL INSTITUTE OFFERS THE FOLLOWING PROGRAMS OF STUDY:

ASSOCIATE IN ARTS OR SCIENCE DEGREE

GENERAL EDUCATION CURRICULUM
PRE-BUSINESS ADMINISTRATION
PRE-BUSINESS EDUCATION
PRE-ENGINEERING
PRE-LIBERAL ARTS
PRE-RECREATIONAL
PRE-SCIENCE
PRE-TEACHING—ELEMENTARY AND SECONDARY

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

BUSINESS ADMINISTRATION
DRAFTING AND DESIGN TECHNOLOGY
ELECTRONIC DATA PROCESSING
FURNITURE PRODUCTION ASSISTANT
LIBRARY MEDIA TECHNICAL ASSISTANT
PLASTICS TECHNOLOGY
RADIOLOGIC TECHNOLOGY
RECREATION LEADERSHIP (THERAPEUTIC AND COMMUNITY)
SECRETARIAL SCIENCE
    EXECUTIVE SECRETARY
    MEDICAL SECRETARY

DIPLOMA PROGRAMS

AUTOMOTIVE MECHANICS

COSMETOLOGY
ELECTRICAL INSTALLATION AND MAINTENANCE
ELECTRONIC DATA PROCESSING
FURNITURE PRODUCTION ASSISTANT (1 YEAR)
MACHINE SHOP
MECHANICAL DRAFTING
PLASTICS (ONE YEAR)
PRACTICAL NURSE EDUCATION
TEXTILE PRODUCTION ASSISTANT
UPHOLSTERY, CUTTING, SEWING
WELDING

PROJECTED CURRICULA

To provide curricula that will reflect the changing needs of our community and the training patterns for employment, Caldwell Community College and Technical Institute has the approval of the Department of Community Colleges and the State Board of Education to offer additional curricula other than those listed in the present catalog. The curricula listed below can and will be offered as demand and physical facilities are provided:

Carpentry
Operating Room Assistant
Textile Production (Full Time)
Manufacturing Engineering Technology

COLLEGE TRANSFER CURRICULA

SUGGESTED PROGRAMS OF STUDY LEADING TO ASSOCIATE IN ARTS DEGREE

The pre-professional curricula offered by Caldwell Community College and Technical Institute are listed on the following pages. These programs parallel in content those offered by most four-year institutions.

Requirements to professional programs vary among schools, colleges and universities. The following programs suggest certain courses for students planning to transfer. It is imperative that the student make an early decision on the institution to which he wishes to transfer and then elect the courses which will allow him to meet the requirements of that institution. Counselors and faculty advisors may suggest deviations from the following guides when it is evident that a particular course or sequence of courses is not appropriate for the four-year college or university to which the student expects to transfer.

GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE IN ARTS OR ASSOCIATE IN SCIENCE DEGREE

ASSOCIATE IN ARTS

Associate in Arts candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 (“C”) or better:

	Quarter Hours Credit
Communications Arts This requirement is met by completing English 101, 102, 103, and Speech 101	12
Humanities This requirement will be met by selecting 9 hours from "A" below and 6 hours from "B" below. A. Literature, or Advanced Foreign Language B. Music, Art, Philosophy, Religion	15
Mathematics This requirement shall be met by taking the most advanced mathematics for which the student is qualified.	5
Natural Science (Biology, Physical Science, Physics, Chemistry) (It is recommended that 3 quarters of *one* science be selected.)	12
Social Science History 101, 102, 103 Six hours from any of the following: Economics, Regional or Economic Geography, Political Science, Sociology or Psychology	15
Physical Education*	6
Guidance (All entering freshmen must take GUI 101 or an approved equivalent.)	1
Electives	30
TOTAL QUARTER HOURS	96

ASSOCIATE IN SCIENCE

Associate in science candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or higher:

	Qtr. Hrs. Credit
Communication Arts This requirement is met by completing English 101, 102, 103	9

*All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the Department of Physical Education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

Humanities Chosen from Literature, Foreign Language, Music, Art, Religion, Humanities	9
Mathematics Chosen from courses numbered 113 or higher (courses numbered below 113 may be taken for elective credit)	15
Natural Science This requirement is met by taking two sciences from Biology, Physical Science, Physics, Chemistry	24
Social Science Six (6) hours in History and six (6) hours chosen from Economics, Geography, Political Science, Psychology, and Sociology	12
Guidance 101 All entering freshmen must take Gui 101 or an approved equivalent	1
Physical Education*	6
Computer Programming EDP 125	3
Electives	17
TOTAL QUARTER HOURS	96

GENERAL EDUCATION CURRICULUM

The program outlined below is designed for those students who do not have a definite educational objective, but who wish to take a program of studies which will allow flexibility in transferring or which will be of value to the general cultural development of the students.

FRESHMAN YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 101 MAT 111	College Math or College Algebra	5
	Elective or Foreign Language	3
	Physical Education	1
		16

*All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the Department of Physical Education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180—Personal and Community Health.

WINTER QUARTER

ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3
MAT 102	College Math or	
MAT 112	Trigonometry	5
SPH 101	Fundamentals of Speech	3
	Elective or Foreign Language	3
	Physical Education	1
		18

SPRING QUARTER

ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
MAT 103	College Math or	
MAT 113	Analytic Geometry & Calculus	5
PSY 201	General Psychology	3
	Elective or Foreign Language	3
	Physical Education	1
		18

SOPHOMORE YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
ENG 201	English Literature	3
	Social Science Elective	3
PHI 201	Introduction to Philosophy	3
	Natural Science Elective	4
	Electives	3-6
	Physical Education	1
		17-20

WINTER QUARTER

ENG 202	English Literature	3
	Social Science Elective	3
	Natural Science Elective	4
ART 101	Introduction to Art	3
	Electives	3-6
		16-19

SPRING QUARTER

ENG 203	English Literature	3
	Natural Science Elective	4
	Social Science Elective	3
SOC 201	General Sociology	3
	Electives	3-6
		16-19

PRE-BUSINESS ADMINISTRATION

FRESHMAN YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 101	College Math I or	
MAT 111	College Algebra	5
BUS 101	Introduction to Business	5
	Physical Education	1
		18
WINTER QUARTER		
ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3
SPH 101	Fundamentals of Speech	3
MAT 102	College Math or	
MAT 112	College Trigonometry	5
MUS 101	Introduction to Music	3
	Physical Education	1
		18
SPRING QUARTER		
ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
PSY 201	Gen. Psychology	3
SOC 201	Gen. Sociology	3
BUS 112	Personal Finance	3
	Physical Education	1
		16

SOPHOMORE YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
ENG 201	English Literature	3
	Natural Science Elective	4
ECO 201	Economics	3
BUS 120	Principles of Accounting	3
PHI 201	Intro. to Philosophy	3
	Physical Education	1
		17
WINTER QUARTER		
ENG 202	English Literature	3
	Natural Science Elective	4
ECO 202	Economics	3

BUS 121	Principles of Accounting	3
	Social Science Elective	3
	Physical Education	1
		17

SPRING QUARTER

	Natural Science Elective	4
ECO 203	Economics	3
BUS 122	Principles of Accounting	3
	Social Science Elective	3
	Elective	3
	Physical Education	1
		17

PRE-BUSINESS EDUCATION

FRESHMAN YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 101	College Math or	
MAT 111	College Algebra	5
BUS 102	*Typewriting	3
	Physical Education	1
		16
WINTER QUARTER		
ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3
MUS 101	Introduction to Music	3
SPH 101	Fundamentals of Speech	3
BUS 103	*Typewriting	3
	Physical Education	1
		16
SPRING QUARTER		
ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
BUS 104	*Typewriting	3
PSY 201	Gen. Psychology	3
SOC 201	Gen. Sociology	3
	Physical Education	1
		16

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* Advanced placement given based on level of achievement.

SOPHOMORE YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
ENG 201	English Literature	3
	Natural Science Elective	4
BUS 106	*Shorthand	3
ECO 201	Principles of Economics	3
BUS 120	Principles of Accounting	3
	Physical Education	1
		17
WINTER QUARTER		
ENG 202	English Literature	3
	Natural Science Elective	4
BUS 107	*Shorthand	3
ECO 202	Principles of Economics	3
BUS 121	Principles of Accounting	3
	Physical Education	1
		17
SPRING QUARTER		
	Natural Science Elective	4
BUS 108	*Shorthand	3
ECO 203	Principles of Economics	3
BUS 122	Principles of Accounting	3
	Elective	3
	Physical Education	1
		17

PRE-ENGINEERING

FRESHMAN YEAR

Course No.	Course Title	Qtr. Hrs.
FALL QUARTER		
GUI 101	Orientation	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 111	College Algebra	5
CHM 101	Gen. Chemistry	4
	Physical Education	1
		17
WINTER QUARTER		
ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3

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* Advanced placement given based on level of achievement.

MAT 112	College Trigonometry	5
EGR 101	Eng. Graphics	3
CHM 102	Gen. Chemistry	4
	Physical Education	1
		19

SPRING QUARTER

ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
MAT 113	Analytic Geo. & Calculus	5
CHM 103	Gen. Chemistry	4
EGR 102	Eng. Graphics	3
	Physical Education	1
		19

SOPHOMORE YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 201	English Literature	3
MAT 201	Analytic Geo. & Calculus	5
PHY 211	Physics	4
ECO 201	Principles of Economics	3
CHM 201	Qualitative Analysis	5
	Physical Education	1
		21

WINTER QUARTER

ENG 202	English Literature	3
ECO 202	Principles of Economics	3
MAT 202	Analytic Geo. & Calculus	5
PHY 212	Physics	4
SPH 101	Fund. of Speech	3
	Physical Education	1
		19

SPRING QUARTER

PHY 213	Physics	4
MAT 220	Differential Equations	5
ECO 203	Principles of Economics	3
	*Elective	0-3
EDP 125	Computer Programming	3
	Physical Education	1
		16-19

* Electives may be selected to meet requirements of the institution to which student plans to transfer.

PRE-LIBERAL ARTS

FRESHMAN YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 101	College Math or	
MAT 111	College Algebra	5
	*Foreign Language or	
	**Elective	3
	Physical Education	1
		16

WINTER QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3
MUS 101	Intro. to Music	3
SPH 101	Fund. of Speech	3
	*Foreign Language or	
	**Elective	3
	Physical Education	1
		16

SPRING QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
PSY 201	General Psychology	3
SOC 201	General Sociology	3
	*Foreign Language or	
	**Elective	3
	Physical Education	1
		16

SOPHOMORE YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 201	English Literature	3
PHI 201	Intro. to Philosophy	3
	Natural Science Elective	4

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* Students with credit for two high school units of Spanish should enroll in SPA 201.

** Electives should be selected to meet requirements of the institution to which students plan to transfer.

	*Foreign Language or **Elective	3
	Physical Education	1
	**Elective	3
		17

WINTER QUARTER

ENG 202	English Literature	3
ART 101	Art Appreciation	3
	Natural Science Elective	4
	*Foreign Language or Elective	3
	**Elective	3
	Physical Education	1
		17

SPRING QUARTER

GEO 201	Physical Geography	4
POL 203	State & Local Gvt.	3
	Natural Science Elective	4
	*Foreign Language or Elective	3
	**Elective	3
	Physical Education	1
		18

PRE-RECREATIONAL

FRESHMAN YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 101 MAT 111	College Math or College Algebra	5
REC 101	Intro. to Rec. Services	3
	*Foreign Language	3
	Physical Education	1
		19

WINTER QUARTER

MUS 101	Music Appreciation	3
ENG 102	Grammar & Composition	3

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* Students with credit for two high school units of Spanish should enroll in SPA 201.

** Electives should be selected to meet requirements of the institution to which student plans to transfer.

HIS 102	World Civilization	3
SPH 101	Fund. of Speech	3
	*Foreign Language or	3
	**Elective	3
	Physical Education	1
		19

SPRING QUARTER

SOC 201	Gen. Sociology	3
ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
REC 105	Recreational Areas and Facilities	3
	*Foreign Language or	3
	**Elective	3
	Physical Education	1
		19

SOPHOMORE YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
PSY 201	Gen. Psychology	3
ENG 201	English Literature	3
PHI 201	Intro. to Philosophy	3
REC 206	Recreational Drama	3
	Natural Science Elective	4
	**Elective	3
	Physical Education	1
		20

WINTER QUARTER

POL 201	Fed. Government	3
ENG 202	English Literature	3
REC 107	Team Sports	3
ECO 200	Economics	3
ART 101	Art Appreciation	3
	Natural Science Elective	4
	Physical Education	1
		20

SPRING QUARTER

EDU 201	Principles of Education	3
GEO 201	Physical Geography	4
ENG 203	English Literature	3
	Natural Science Elective	4
	**Elective	3
	Physical Education	1
		18

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* Students with credit for two high school units of Spanish should enroll in SPA 201.

** Electives should be selected to meet requirements of the institution to which student plans to transfer.

PRE-SCIENCE

FRESHMAN YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
MAT 111	College Algebra	5
	*Natural Science Elective	4
HIS 101	World Civilization	3
	Physical Education	1
		17

WINTER QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3
MAT 112	College Trigonometry	5
	*Natural Science Elective	4
SPH 101	Fundamentals of Speech	3
	Physical Education	1
		19

SPRING QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 103	Grammar & Composition	3
HIS 103	World Civilization	3
MAT 113	Analytic Geo. & Calculus	5
	*Natural Science Elective	4
EDP 125	Computer Programming	3
	Physical Education	1
		19

SOPHOMORE YEAR

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 201	English Literature	3
MAT 201	Analytic Geo. & Calculus	5
	*Natural Science Elective	4
PSY 201	Gen. Psychology	3
	Foreign Language or Elective	3
	Physical Education	1
		19

WINTER QUARTER

Course No.	Course Title	Qtr. Hrs.
ENG 202	English Literature	3
MAT 202	Analytic Geo. & Calculus	5
ECO 200	Economics	3
	*Natural Science Elective	4

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* Natural Science Elective should relate to major field.

	Foreign Language or	
	Elective	3
	Physical Education	1
		19

SPRING QUARTER

GEO 201	Physical Geography	4
POL 203	State and Local Government	3
	*Natural Science Elective	4
	Foreign Language of Elective	3
	Elective	3
	Physical Education	1
		18

PRE-TEACHING

FRESHMAN YEAR

Course No. **Course Title**

FALL QUARTER

Course No.	Course Title	Qtr. Hrs.
GUI 101	Introduction to Education	1
ENG 101	Grammar & Composition	3
HIS 101	World Civilization	3
MAT 101	College Math or	
MAT 111	*College Algebra	5
	Natural Science Elective	4
	Physical Education	1
		17

WINTER QUARTER

MUS 101	Music Appreciation	3
ENG 102	Grammar & Composition	3
HIS 102	World Civilization	3
MAT 102	College Math or	
MAT 112	*College Trigonometry	5
	Natural Science Elective	4
	Physical Education	1
		19

SPRING QUARTER

ENG 103	Grammar & Composition	3
HIS 102	World Civilization	3
MAT 103	College Math or	
MAT 113	Analytic Geometry and	
	*Calculus	5
	Natural Science Elective	4

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*One planning to teach mathematics or natural science in high school should take College Algebra and Trigonometry, Analytical Geometry and Calculus. Physics should be taken during the sophomore year. Majors in other fields should concentrate in their disciplinary areas.

	**Elective	3
	Physical Education	1
		19

SOPHOMORE YEAR

Course No.	Course Title	
FALL QUARTER		**Qtr. Hrs.**
ENG 201	English Literature I	3
PSY 201	General Psychology	3
PHI 201	Intro. to Philosophy	3
HIS 201	American History	3
	**Elective	3
	Physical Education	1
		16

WINTER QUARTER

ENG 202	English Literature II	3
SPH 101	Fund. of Speech	3
ECO 200	Economics	3
ART 101	Art Appreciation	3
HIS 202	American History	3
	**Elective	3
	Physical Education	1
		19

SPRING QUARTER

ENG 203	English Literature III	3
GEO 201	Physical Geography	4
EDU 201	Principles of Education	3
HIS 203	American History	3
	**Elective	3
	Physical Education	1
		17

** Electives should relate to teaching field, where possible.

TECHNICAL CURRICULA

The two-year technical curricular program is designed to prepare enrollees for technician-level occupations. More emphasis is given to theory than in vocational courses. Also, roughly one-half of the course requirements are in general education and the sciences underlying the particular occupational area.

BUSINESS ADMINISTRATION (T 18)

Purpose of Curriculum

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this State, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. The business administration curriculum is designed to prepare the student for employment in one of many occupations common to business. Education is aimed at preparing the student in many phases of administrative work that might be encountered in the average business.

The specific objectives of the business administration curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations.
2. Understanding our economy through study and analysis of the role of production and marketing.

Job Description

The graduate of the business administration curriculum may enter a variety of career opportunities from beginning sales person or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms. These encompassments might include: making up and filing reports, tabulating and posting data in various books, sending out bills, checking calculations, adjusting complaints, operating various office machines, and assisting managers in supervising. Positions are potentially available in business: advertising, banking, credit, finance, retailing, wholesaling, hotel, tourist, and travel industry, insurance, transportation, and communications.

BUSINESS ADMINISTRATION
CURRICULUM BY QUARTERS

	CourseTitle	Hours Per Week		Quarter Hours Credit
		Class	Lab	
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
BUS 102	Typewriting	2	3	3
MAT 110	Business Mathematics	5	0	5
BUS 101	Introduction to Business	5	0	5
ECO 102	Economics	3	0	3
		19	3	20
SECOND QUARTER				
T-ENG 102	Composition	3	0	3
T-BUS 120	Accounting	5	2	6
ECO 104	Economics	3	0	3
BUS 115	Business Law	3	0	3
BUS 239	Marketing	5	0	5
		19	2	20
THIRD QUARTER				
T-ENG 103	Report Writing	3	0	3
BUS 110	Office Machines	2	2	3
BUS 116	Business Law	3	0	3
T-BUS 121	Accounting	5	2	6
BUS 243	Advertising	3	2	4
		16	6	19
FOURTH QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
BUS 232	Sales Development	3	0	3
EDP 104	Introduction to Data Processing System	3	2	4
BUS 123	Business Finance	3	0	3
	Business Elective	3	0	3
		15	2	16

FIFTH QUARTER

ENG 206	Business Communication	3	0	3
BUS 272	Principles of Supervision	3	0	3
BUS 124	Business Finance	3	0	3
	Social Science Elective	3	0	3
	Business Elective	3	0	3
		15	0	15

SIXTH QUARTER

BUS 229	Taxes	3	2	4
BUS 247	Business Insurance	3	0	3
BUS 271	Office Management	3	0	3
BUS 235	Business Management	3	0	3
	Social Science Elective	3	0	3
	Business Elective	3	0	3
		18	2	19

TOTAL QUARTER HOURS IN COURSES	94
ELECTIVES (MIN)	15
TOTAL	109

DRAFTING

Purpose of Curriculum

This curriculum is designed to prepare a person to enter the world of work in the mechanical drafting field.

Upon completion of the first four quarters he will be prepared to enter the field on the trade level. The student will study basic drafting in the first two quarters. From there he will go into the mechanical specialties for the two remaining quarters.

Related courses are offered in a sequential manner to enable the student to progress in a chronological order according to the building method from basics to the advanced.

The person completing the course of study will be expected to communicate with people in architecture, mechanical engineering, mechanical drafting, tool and die making, skilled positions, unskilled positions, selling or construction.

A person need not have a high school diploma in order to enter this course and receive a diploma. However, if the person plans to continue for the fifth and sixth quarters and receive an A.A. degree, he must have a high school diploma or successfully pass the high school proficiency.

Job Description

A draftsman prepares clear, complete, and accurate working plans and detail drawings, from rough or detailed sketches or notes for engineering or manufacturing purposes, according to the specified dimensions: makes final sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. Makes any adjustments or changes necessary or desired.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, and the drawing of necessary details. He prepares accurate scale drawings of parts or machines from specifications.

Mechanical drafting and design technicians are concerned with the preparation of drawings for design proposals, for experimental models and items for production use.

These technicians perform many aspects of drafting in a specialized field, such as the developing of the drawing of a section, sub-assembly or major component. Investigating design factors and availability of material and equipment, production methods and facilities are frequent assignments. They assist in the design of units and controls from specifications by utilizing drawings of existing units and reports on functional performance. They may draw components in industrial fields based on engineers' original design concepts or specific ideas. Also, they may be assigned as coordinators for the execution of related work of other design, production, tooling, material and planning groups. Technicians with experience in this classification may often supervise the preparation of working drawings.

The technicians are employed in many types of manufacturing, fabrication, research development and service industries. Substantial numbers also are employed in communications, transportation, public utilities, consulting engineering firms, and federal, state, and local governments.

DRAFTING AND DESIGN

Curriculum by Quarters

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
T-MAT 101	Technical Mathematics	5	0	5
PHY 101	Physics: Matter	3	2	4
T-DFT 101	Technical Drafting	2	8	5
T-MEC 101	Machine Process	1	5	3
		15	15	21

SECOND QUARTER

T-ENG 102	Composition	3	0	3
T-MAT 102	Technical Mathematics	5	0	5
PHY 102	Physics: Work, Power, Energy	3	2	4
T-DFT 102	Technical Drafting	2	8	5
T-MEC 102	Machine Process	1	5	3
		14	15	20

THIRD QUARTER

SPH 101	Fundamentals of Speech	3	0	3
T-MAT 103	Technical Mathematics	5	0	5
PHY 103	Physics: Electricity & Magnetism	3	2	4
T-DFT 103	Technical Drafting	2	9	5
T-PHY 106	Applied Mechanics	5	0	5
		18	11	22

FOURTH QUARTER

T-DFT 201	Technical Drafting	3	9	6
T-DFT 204	Descriptive Geometry	2	4	4
T-MEC 205	Strength of Materials	3	2	4
T-MEC 210	Physical Metallurgy	3	3	4
		11	18	18

FIFTH QUARTER

T-DFT 205	Design Drafting	2	8	5
T-DFT 211	Mechanisms	3	2	4
T-MEC 211	Physical Metallurgy	3	3	4
T-WLD 101	Basic Welding	3	0	3
	Social Science elective	3	0	3
		14	13	19

SIXTH QUARTER

T-DFT 206	Design Drafting	2	8	5
T-MEC 235	Hydraulics and Pneumatics	3	3	4
	Elective	3	0	3
	Elective	3	0	3
	Social Science elective	3	0	3
		14	11	18

TOTAL QUARTER HOURS	106
ELECTIVES	12
	118

ELECTRONIC DATA PROCESSING (T-22)

(Two-Year)

Purpose of Curriculum

The uses of the computer in business and business related organizations continue to increase. The computer is a vital resource which demands personnel educated in programming and systems for its potential to be realized. Additionally, those responsible for the integration of computers in business organizations must have a thorough fundamental knowledge of business and its processes.

The two-year data processing curriculum is designed to provide the graduate an excellent foundation in programming and systems. Emphasis is placed on learning-by-doing, and the student will obtain practical experience in local data processing installations.

Knowledge of business processes is acquired through study of business related courses, e.g. accounting, introduction to business.

Proper communication is critical in data processing. English courses are included in the curriculum to enhance the graduates' ability to convey his ideas both verbally and in written reports.

Upon completion of the curriculum, the graduate is prepared to participate in several areas of an interesting and rewarding career.

Job Description

The data processing specialist often is called upon to perform many varied tasks in a computer center. He is required frequently to operate and program the computer system. He may be a member of a programming team, whose responsibility is to prepare programs for computer solution through joint effort. He may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals he may be required to update, revise, correct, and write programs as the needs of management dictate.

TWO-YEAR CURRICULUM

	Course Title	Class	Lab	Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
EDP 101	Computers and Programming	4	4	6
BUS 101	Introduction to Business	5	0	5
		13	4	15
SECOND QUARTER				
T-ENG 102	Composition	3	0	3
T-MAT 101	Tech. Math	5	0	5
T-BUS 120	Accounting	5	2	6
EDP 102	Computers and Programming	4	4	6
		17	6	20

THIRD QUARTER

T-ENG 103	Report Writing	3	0	3
T-BUS 121	Accounting	5	2	6
EDP 208	Systems and Programming Applications	4	4	6
	Elective	3	0	3
		15	6	18

FOURTH QUARTER

SPH 101	Fundamentals of Speech	3	0	3
MAT 214	Statistics	5	0	5
EDP 202	Compiler Language	4	4	6
	Social Science Elective	3	0	3
		15	4	17

FIFTH QUARTER

EDP 209	Systems and Programming Applications	4	4	6
EDP 214	Practicum	0	15	5
	Business Elective	3	0	3
	Social Science Elective	3	0	3
		10	19	17

SIXTH QUARTER

	Elective	3	0	3
EDP 217	Data Processing Project	1	8	5
EDP 215	Practicum	0	15	5
EDP 221	Computer Systems and Language Survey	2	2	3
		6	25	16

TOTAL QUARTER HOURS IN COURSE	88
ELECTIVES	15
	103

FURNITURE PRODUCTION ASSISTANT (T 75)

(Degree Program)

Purpose of Curriculum

The curriculum guide was prepared in cooperation with CCC&TI and the area furniture committee. The purposes of this program are to develop the following competencies:

1. Better performance of the student on the job.
2. Train for a specific production or staff job in local Furniture Industry.
3. Train for jobs in production operations.
4. Knowledge of supervisory responsibilities as they apply to production requirements.
5. Knowledge in specific elements of technical operations.

6. Understanding the principles of organization and production operation of the furniture industry.

Job Description

The graduate of this program may serve in many areas of the local furniture industry. These areas would include: Assistant to plant manager, methods improvement, quality control inspector, cost estimators, product engineer trainee, production control trainee, material control supervisor, department supervisor, production scheduling and control, material testing, employee trainer, and industry safety.

FURNITURE PRODUCTION ASSISTANT

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
MAT 110	Business Mathematics	5	0	5
T-FUR 104	Characteristics of Wood	2	0	2
T-DFT 101	Drafting	2	6	4
T-FUR 108	Production Equipment	4	0	4
T-FUR 105	Glues	1	0	1
		18	6	20
SECOND QUARTER				
T-ENG 102	Composition	3	0	3
T-FUR 109	Production Equipment	4	0	4
T-FUR 102	Construction & Billing	1	3	2
T-DFT 102	Drafting	2	6	4
PSY 206	Applied Psychology	3	0	3
		13	9	16
THIRD QUARTER				
T-ENG 103	Report Writing	3	0	3
T-FUR 103	Construction & Billing	1	3	2
BUS 101	Introduction to Business	5	0	5
T-FUR 106	Abrasive Material & Method	2	2	3
T-DFT 103	Drafting	2	6	4
		13	11	17
FOURTH QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
T-ISC 201	Industrial Orgainzation & Management	3	0	3
T-BUS 272	Principal of Supervision	3	0	3
T-BUS 111	Collecting & Reporting Info.	2	2	3

T-FUR 107	Finishing Method & Material	2	2	3
T-FUR 112	Routing, Scheduling & Process	2	2	3
		15	6	18

FIFTH QUARTER

	Social Science Elective	3	0	3
T-ISC 103	Production Control	1	3	2
BUS 285	Cost Records & Estimates	2	0	2
T-ISC 102	Industrial Safety	3	0	3
T-ISC 203	Motion Study	2	2	3
	Elective	3	0	3
		14	5	16

SIXTH QUARTER

	Social Science Elective	3	0	3
T-ISC 207	Foremanship Supervision	3	0	3
ECO 102	Economics	3	0	3
T-ISC 202	Quality Control	3	0	3
T-ISC 204	Value Analyst	3	0	3
	Elective	3	0	3
		18	0	18

TOTAL QUARTER HOURS IN COURSE	94
ELECTIVES	12
TOTAL	106

LIBRARY MEDIA TECHNICAL ASSISTANT

INTRODUCTION

Purpose of Curriculum

The library media technical assistant program is designed to prepare paraprofessionals for employment in various types of libraries and information centers: College, school, hospital, government, and industry. The curriculum provides a background of general education, training in basic audio-visual and library skills, and related courses which will prepare interested persons for entry into library-media work above the clerical status. Introduction to a variety of experiences which a library media technical assistant may enter is provided. The courses are not designed to transfer as library science courses in the upper level degree library program of a college or university; however, the courses will be helpful as background for students desiring to enter the professional field, and the business courses could provide a good background for further business training. Thus, a variety of career opportunities is open to the graduate of the library media technical assistant program.

Job Description

Graduates from the program function in a supportive role, understand basic library organization and accept the realities of library or media work under the general supervision of a librarian or media specialist. They may be expected to develop and maintain a working knowledge of policies, practices, and resources of any given library or information center. They have acquired a proficiency in production of instructional materials and the operation of equipment and it daily maintenance.

As assistants, graduates are not prepared to assume administrative or teaching responsibilities, but they do learn to use the basic terminology and to supervise technical and clerical aspects of all library procedures and routines. The occupational aspect of the program trains people for duties related to such functions as the mechanical preparation of library and audio-visual material; the physical maintenance of both print and non-print materials, files, and equipment; circulation work; acquisitions work; cataloging (except original cataloging); and work involving direct public assistance at information and ready-reference service desks.

LIBRARY MEDIA TECHNICAL ASSISTANT

Suggested Curriculum by Quarters

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
MAT 110	Business Mathematics	5	0	5
BUS 102	Typewriting	2	3	3
T-EDM 101	Introduction to Libraries and Information Centers	3	0	3
	Elective (Science)	3	0	3
		17	3	18
SECOND QUARTER				
T-ENG 102	Composition	3	0	3
BUS 103	Typewriting	2	3	3
T-EDM 102	Library Process	3	0	3
T-BUS 120	Accounting	5	2	6
	Elective (Science)	3	0	3
		16	5	18
THIRD QUARTER				
T-ENG 103	Report Writing	3	0	3
EDM 104	Audiovisual Equipment	2	2	3
T-EDM 103	Library Media Resources	3	0	3
T-PSY 206	Applied Psychology	3	0	3
BUS 110	Office Machines	2	2	3
	Elective	3	0	3
		16	4	18
FOURTH QUARTER				
T-EDP 104	Introduction to Data Processing	3	2	4
T-EDM 201	Library Processes	3	2	4
HUM 101	Humanities	4	0	4
EDM 105	Introduction to Production	2	3	3
	Elective	3	0	3
		15	7	18
FIFTH QUARTER				
T-EDM 202	Library Media Procedures	3	2	4
SPH 101	Fundamentals of Speech	3	0	3
HUM 102	Humanities	4	0	4
T-EDM 203	Practicum	2	6	4
	Elective	3	0	3
		15	8	18

SIXTH QUARTER

T-EDM 204	Practicum	2	6	4
POL 203	State and Local Government	3	0	3
HUM 103	Humanities	4	0	4
GEO 202	Geography	5	0	5
	Elective	3	0	3
		17	6	19

TOTAL QUARTER HOURS IN COURSES	91
ELECTIVES	18
TOTAL	109

PLASTICS TECHNOLOGY

Purpose of Curriculum

There exists a serious shortage in trained personnel in the plastics field. This shortage of skilled employees will increase as the plastics industry grows. This curriculum is designed to help prepare interested individuals for the ever expanding world of plastics. A basic understanding of plastics and how they are produced into final products will be stressed.

Job Description

Upon completion of the one year (four quarters) program, the graduate could operate as a junior product designer, an apprentice tool maker or designer, machine operator, inspector, or materials handler.

Completion of the second year, technical program (seven quarters), the graduate could function in a supervisory capacity for the plastics industry.

PLASTICS TECHNOLOGY

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
T-ISC 102	Industrial Safety	3	0	3
T-PLA 101	Introduction to Plastics	2	3	3
T-DFT 104	B.P. Reading: Mechanical	0	3	1
T-MAT 101	Technical Mathematics	5	0	5
ENG 100	Reading Improvement	2	0	2
GUI 101	Introduction to Education	1	0	1
		13	6	15
SECOND QUARTER				
T-MEC 101	Machine Process	1	5	3
T-PLA 105	Plastic Forming I	2	6	4

T-DFT 105	B.P. Reading & Sketching	0	3	1
T-MEC 217	Engineering Mat., Proc., Test.	3	3	4
T-MAT 102	Technical Mathematics	5	0	5
		11	17	17

THIRD QUARTER

T-PLA 107	Plastics Forming	6	6	8
T-PLA 106	Materials Compounding	3	2	4
T-MEC 102	Machine Process	1	5	3
T-MEC 235	Hydraulic & Pneumatics	3	3	4
		13	16	19

FOURTH QUARTER

T-PLA 118	Fabricating, Lam, Finishing	3	0	3
T-PLA 135	Physical Prop. of Plastics	2	3	3
T-PLA 117	Plastics Forming	3	6	5
T-MEC 103	Machine Process	1	5	3
T-ELC 101	Basic Electricity	2	3	3
		11	17	17

FIFTH QUARTER

T-ENG 101	Grammar	3	0	3
T-MEC 210	Physical Metallurgy	3	3	4
BUS 272	Prin. of Supervision	3	0	3
T-ISC 103	Production Control	1	3	2
T-PLA 219	Plastic Mold Design	1	3	2
	Elective	3	0	3
		14	9	17

SIXTH QUARTER

T-PLA 220	Plastic Mold Design	2	6	4
T-ISC 201	Industrial Org. and Mgt.	3	0	3
T-MEC 207	Tool Making	3	3	4
T-ENG 102	Composition	3	0	3
	Elective	3	0	3
		14	9	17

SEVENTH QUARTER

T-MEC 213	Production Planning	3	3	4
T-PLA 225	Practicum	1	6	3
T-MEC 237	Control Systems (Electrical)	3	3	4
SPH 101	Fundamentals of Speech	3	0	3
	Elective	3	0	3
		13	12	17

TOTAL QUARTER HOURS IN COURSES	110
ELECTIVES	9
TOTAL	119

RADIOLOGIC (X-RAY) TECHNOLOGY

The advance of scientific knowledge in the medical field and the increase in services offered by hospitals and health centers have greatly increased the need for competent radiologic technologists. The radiologic technologists perform an important function in the rapidly growing branch of medicine known as radiology. Technologists are support personnel for physicians, and they specialize in the use of X-rays and other forms of ionizing radiation.

The radiologic technologist should like people and be able to attend the sick or disabled with tact and sympathy. He should be dependable, accurate, and determined to continue his eduation beyond certification to keep up with new developments in the field.

The program in Radiology Technology offered by Caldwell Community College and Technical Institute provides an opportunity for immediate employment as well as for continuing one's education at a senior institution. Graduates of both the Associate in Applied Science and Associate in Arts Degrees are eligible to take the National Registry in Radiology Technology examination and, upon successful completion of this test, may become a Registered Radiologic Technologist.

The program at Caldwell Community College and Technical Institute is presently provisionally accredited by the Joint Review Committee on medical education sponsored by the American Medical Association and the American Registry of Radiologic Technologists. Final approval of the program in Radiologic Technology is anticipated within the next 12 months when an on site visitation committee completes its investigation.

Employment Opportunities

Hospitals
Clinics
Public Health Agencies
Equipment Specialists
Industrial Clinics
Instructors

RADIOLOGIC TECHNOLOGY (T-61)

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
ENG- 101	English Composition	3	0	3
T-MAT 105	Radiologic Mathematics			
	or			
MAT 101	College Mathematics			
	or			
MATH 111	Algebra	3-5	0	3-5
RDT 101	Professional Ethics and Orientation and Rad. Protection	2	0	2
BIO 108	Anatomy & Physiology	3	2	4
RDT 106	Medical Terminology	1	0	1
RDT 110	Radiographic Techniques	2	12	6
		15-17	14	20-22
SECOND QUARTER				
ENG 102	English Composition	3	0	3
PHY 107	Physics	3	2	4
BIO 109	Anatomy & Physiology	3	2	4
RDT 107	Medical Terminology	1	0	1
RDT 111	Radiographic Techniques	3	15	8
		13	19	20
THIRD QUARTER				
ENG 102	English Composition	3	0	3
PHY 108	Physics	3	2	4
RDT 108	Nursing and Emergency Procedures in Radiologic Technology	2	0	2
RDT 109	Pediatric Radiography	1	0	1
RDT 112	Radiographic Techniques	4	15	9
		13	17	19
FOURTH QUARTER				
RDT 113	Radiologic Technology Lab	0	36	12
RDT 114	Radiographic Techniques Seminar	2	0	2
Total		2	36	14
FIFTH QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
RDT 201	Topographic Anatomy	2	0	2
RDT 202	Patient and Personnel Protect.	1	0	1
RDT 210	Radiographic Techniques	3	18	9
	Elective	3	0	3
		12	18	18

SIXTH QUARTER

PSY 201	Psychology	3	0	3
RDT 203	Special Radiographic Proc.	2	0	2
RDT 204	Nuclear Medicine Tec.	1	0	1
BIO 208	Introduction to the Study of Disease	3	0	3
RDT 206	Intraoral Radiography	1	0	1
RDT 211	Radiographic Techniques V	3	18	9
		13	18	19

SEVENTH QUARTER

SOC 201	Sociology	3	0	3
RDT 207	Radiation Therapy	1	0	1
RDT 208	Equipment Maintenance	2	0	2
RDT 212	Radiographic Techniques VI	3	18	9
	Elective	3	0	3
		12	18	18

EIGHTH QUARTER

BUS 233	Personnel Management and Departmental Administration	3	0	3
RDT 213	Radiographic Techniques VII	2	30	12
RDT 214	Radiographic Techniques Seminar II	2	0	2
		7	30	17

TOTAL QUARTER HOURS IN COURSES	139-141
ELECTIVES	6
TOTAL	145-147

NINTH QUARTER (Optional)

HUM 101	Personal and Cultural Appreciation I	4	0	4
	Language or Literature	3	0	3
	Elective	3-5	0	3-5
	Elective	3	0	3
	Elective	3	0	3
	P.E.	0	2	1
	P.E.	0	2	1
		16-18	4	18-20

TENTH QUARTER (Optional)

HUM 102	Personal and Cultural Appreciation II	4	0	4
	Language or Literature	3	0	3
	Elective	3-5	0	3-5
	Elective	3	0	3
	Elective	3	0	3
	P.E.	0	2	1
	P.E.	0	2	1
		16-18	4	18-20

RECREATION LEADERSHIP CURRICULUM THERAPEUTIC AND COMMUNITY RECREATION

Introduction

Purpose of Curriculum

This curriculum is designed to prepare leadership level therapeutic and community recreation leaders through a specialized training program in leading constructive leisure activities. Courses are offered in recreation leadership, program planning, services, personal and community health, social recreation, areas and facilities, outdoor education and abnormal psychology. Specific instruction is given in music, dance, drama, camping, audio-visual aids, first aid, crafts, and sports. Field work experiences are provided in various institutions and community recreation programs in order for the students to get an over-all understanding for the needs and problems of different groups.

This program strives to provide leaders for the serious lack of skilled personnel in our institutional and community recreation programs. Presently employed recreation personnel also will be encouraged to register for this curriculum on a part-time basis in order to improve or upgrade their skill, knowledge, and effectiveness.

Curriculum Options

Students enrolled in the recreation curriculum have the option of specializing in a particular area of recreation. The two major areas of concentration are recreational therapy and community recreation. A considerable proportion of the offered courses within the curriculum will transfer to four year institutions with the number of transferred hours dependent on each college.

The therapeutic option is designed to train leaders for health agencies serving the ill and handicapped. Students interested in therapeutic recreation concentrate their field work experiences with health agencies such as institutions for the mentally ill, mentally retarded, correctional centers, physically handicapped, and day care centers.

The community recreation option is designed to train recreation leaders for public, private, and commercial recreation agencies. The community recreation specialty requirements are fulfilled with municipal departments, YMCA's, YWCA's, and private and commercial recreation establishments.

Career Opportunities

In 1967, the National Recreation and Parks Association reported that of 215,790 full and part-time recreators in the United States, over 66,000 of these positions would require associate professional personnel. Most surveys indicate that the trend to employ associate professionals is expected to continue with increasing opportunities at the leadership level.

The graduate of the Recreation Leadership Curriculum may enter a variety of careers in the field of recreation. In most situations the leader will work under the supervision of a professional recreator.

The demand for recreation leaders surely will increase as more and more attention is focused on leisure time. The recreation leader will need the skills and background knowledge to work as an activity director in sports, arts and crafts, or to supervise and conduct programs for various recreation facilities in public, private, commercial, industrial, and institutional settings.

Regardless of the type of employing agency, the recreation leader should function within a specified role, based on the pre-employment program plus on-the-job orientation. Careful evaluation of performance and assessment of individual qualifications may provide evidence for extending the role of these individuals who demonstrate the capacity for assuming additional responsibilities or for benefiting from specialized training.

RECREATION LEADERSHIP

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Intro. to Education	1	0	1
*T-ENG 101	Grammar	3	0	3
REC 101	Intro. to Recreation Services	3	0	3
PSY 201	Intro. to Psychology	3	0	3
PED 180	Personal and Community Health	3	0	3
EDM 104	Audiovisual Equipment	2	2	3
REC 110	Creative Crafts	1	4	3
		18	6	19
SECOND QUARTER				
*T-ENG 102	Composition	3	0	3
REC 121	Social Recreation	3	0	3
REC 103	Recreation Programming	3	0	3
PSY 215	Introduction to Exceptional Ind.	3	0	3
REC 109	First Aid & Safety	3	0	3
MUS 110	Recreational Music	3	0	3
		18	0	18
THIRD QUARTER				
*T-ENG 103	Report Writing	3	0	3
REC 105	Rec. Areas and Fac.	3	0	3
REC 106	Camping	3	0	3

* Students interested in college transfer credit should take ENG 101, ENG 102, and ENG 103.

REC 204	Individual Sports	1	4	3
SOC 201	Intro. to Sociology	3	0	3
REC 207	Field Work	0	6	2
		13	10	17

FOURTH QUARTER

SPH 101	Fundamentals of Speech	3	0	3
REC 104	Rehabilitation Services	3	0	3
REC 206	Recreational Drama	1	4	3
MUS 201	Dance	1	4	3
REC 208	Field Work	0	6	2
	Social Science Elective	3	0	3
		11	14	17

FIFTH QUARTER

	Social Science Elective	3	0	3
REC 202	Recreational Leadership	3	0	3
PSY 210	Human Growth and Devel.	3	0	3
REC 107	Team Sports	1	4	3
REC 209	Field Work	0	9	3
	Elective	3	0	3
		13	13	18

SIXTH QUARTER

REC 211	Recreation Seminar	1	0	1
REC 203	Water Sports	1	4	3
REC 205	Outdoor Education	3	0	3
REC 210	Field Work	0	15	3
		5	19	12

TOTAL QUARTER HOURS IN COURSES	92
ELECTIVES	9
TOTAL	101

SECRETARIAL SCIENCE

(Medical and Executive)

(T 32) (T 30)

Purpose of Curriculum

The demand for better qualified secretaries in our ever-expanding business, industry, government, and professional world is becoming more acute. The purpose of these curricula is to outline a training program that will provide training in the accepted procedures required by the business, industrial and professional areas and to enable persons to become proficient soon after employment in their particular field.

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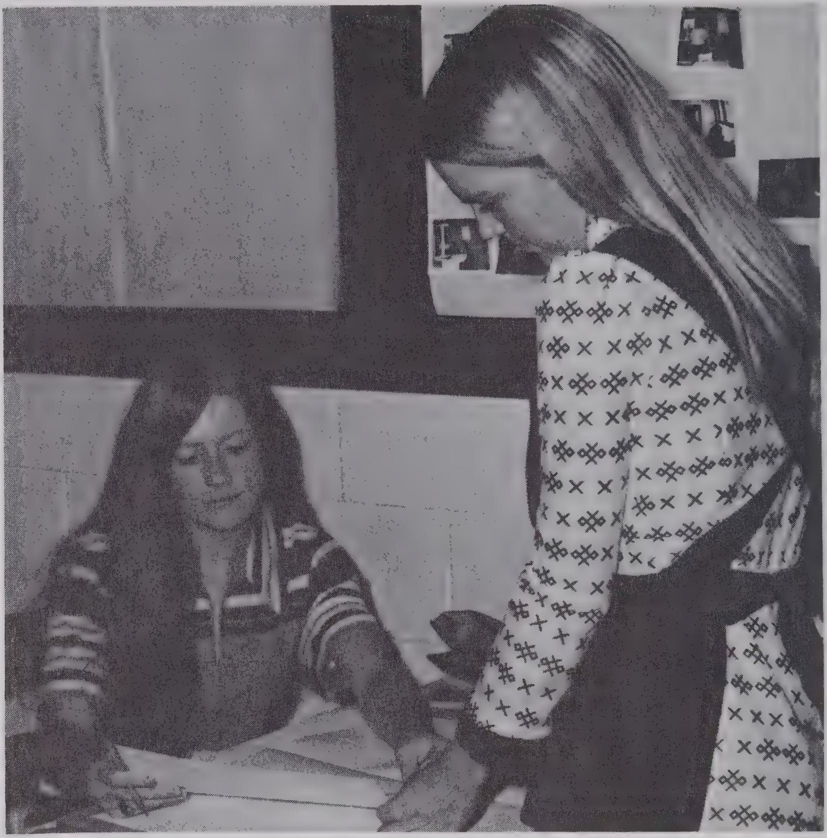
* Students interested in college transfer credit should take ENG 101, ENG 102, ENG 103 and SP 101.



Each of the above listed curricula is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the particular area of work. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

Job Description

The graduates of these programs should have a knowledge of the terminology peculiar to the major area, skill in dictation and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or secretary in a variety of offices in businesses such as insurance companies, banks, marketing, institutions, financial firms, doctors' offices, medical and health institutions, and government agencies.

SECRETARIAL SCIENCE

CURRICULUM BY QUARTERS

FIRST QUARTER

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
*GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
*BUS 102	**Typewriting	2	3	3
*MAT 110	Business Mathematics	5	0	5
*BUS 101	Introduction to Business	5	0	5
BUS 106	**Shorthand	2	3	3
		18	6	20

SECOND QUARTER

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
T-ENG 102	Composition	3	0	3
*BUS 103	**Typewriting	2	3	3
BUS 107	**Shorthand	2	3	3
*T-BUS 120	Accounting	5	2	6
*BUS 115	Business Law	3	0	3
		15	8	18

THIRD QUARTER

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
*T-ENG 206	Business Communication	3	0	3
*BUS 104	**Typewriting	2	3	3
BUS 108	**Shorthand	2	3	3
*BUS 110	Office Machines	2	2	3
*BUS 134	Personal Development	3	0	3
		12	8	15

FOURTH QUARTER

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
SPH 101	Fundamentals of Speech	3	0	3
BUS 206E	Dictation and Transcription (Executive)	3	2	4
BUS 206M	Dictation and Transcription (Medical)	3	2	4
*BUS 205	Advanced Typewriting	2	3	3
*BUS 211	Office Machines	2	2	3
EDP 104	Introduction to Data Processing Systems	3	2	4
BUS 183M	Terminology and Vocabulary (Medical)	3	0	3
	Elective (Executive)	3	0	3
	Executive	16	9	20
	Medical	16	9	20

* A certificate is awarded for satisfactory completion of these courses. Instruction and practice in these primary skills will prepare one for a wide variety of office occupations.

** Advanced placement given based on level of achievement. Students who have completed one or more years of typing and shorthand in high school should see the department chairman for proper placement.

FIFTH QUARTER

T-ENG 206	Business Communications	3	0	3
BUS 207E	Dictation and Transcription (Executive)	3	2	4
BUS 207M	Dictation and Transcription (Medical)	3	2	4
BUS 214	Secretarial Procedures	3	2	4
BUS 284M	Terminology and Vocabulary (Medical)	3	0	3
*	Social Science Elective	3	0	3
*	Business Elective (Executive)	3	0	3
	Executive	15	4	17
	Medical	15	2	17

SIXTH QUARTER

BUS 208E	Dictation and Transcription (Executive)	3	2	4
BUS 208M	Dictation and Transcription (Medical)	3	2	4
BUS 271	Office Management	3	0	3
BUS 247	Business Insurance	3	0	3
*	Social Science Elective	3	0	3
*	Elective	3	0	3
	Executive	15	2	16
	Medical	15	2	16

TOTAL QUARTER HOURS IN COURSES	Medical	Executive	Certificate
	97	91	54
ELECTIVES (Min.)	9	15	12
TOTAL	106	106	66

Recommended electives:

BUSINESS:

BUS 112	Business Finance	3	0	3
BUS 116	Business Law	3	0	3
T-BUS 121	Accounting	5	2	6
BUS 219	Credit Procedures and Problems	3	0	3
BUS 229	Taxes	3	2	4
BUS 233	Personnel Management	3	0	3
BUS 272	Principles of Supervision	3	0	3
ECO 108	Consumer Economics	3	0	3
ECO 102	Economics	3	0	3

* A certificate is awarded for satisfactory completion of these courses. Instruction and practice in these primary skills will prepare one for a wide variety of office occupations.

** Advanced placement given based on level of achievement. Students who have completed one or more years of typing and shorthand in high school should see the department chairman for proper placement.

VOCATIONAL CURRICULA

One year diploma programs designed to prepare enrollees for trade level occupations. Much emphasis is given to the development of manipulative skills.

AUTOMOTIVE MECHANICS (V 03)

Purpose of Curriculum

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair or adjust components of automotive vehicles. Manual skills are developed in practical shop work using components mounted on stands. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and shop practice. Diagnosing and repair work is assigned on scheduled vehicles.

Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks and buses powered by a variety of internal combustion engines. This curriculum provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

Job Description

Automobile mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines and other types equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications to assist in analysis, disassembly and assembly of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all-round" training in general automotive repair.

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab or Shop	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
PME 1101	Internal Comb. Engines	3	12	7
MAT 1101	Fundamentals of Mathematics	3	0	3
DFT 1101	Schematics and Diagrams (Measurement, Tools and Engines)	0	3	1
PHY 1101	Applied Science	2	4	4
ENG 1101	Reading Improvement	2	0	2
		11	19	18
SECOND QUARTER				
PME 1102	Engine Elect. and Fuel Systems	5	15	10
DFT 1102	Schematics and Diagrams (Electrical and Fuel Systems)	1	3	2
MAT 1120	Applied Automotive Math	3	0	3
ENG 1102	Communication Skills	3	0	3
		12	18	18
THIRD QUARTER				
AUT 1123	Brakes, Chassis and Suspension	3	12	7
AHR 1101	Automotive Air Conditioning	2	2	4
DFT 1103	Schematics and Diagrams (Chassis and Braking Systems)	0	3	1
PSY 1101	Human Relations	3	0	3
WLD 1129	Basic Welding	2	3	3
		10	20	18

FOURTH QUARTER

AUT 1124	Automotive Power Train Systems	3	12	7
AUT 1125	Auto Servicing	3	9	6
BUS 1103	Small Business Operations	3	0	3
		9	21	16

ADDITIONAL COURSES AVAILABLE

FIFTH QUARTER

PME 1202	Auto Elect/Electronics	4	9	7
PME 1203	Engine Tune-Up—Auto	4	9	7
	Elective	1	3	2
		9	21	16

SIXTH QUARTER

PME 1224	Adv. Automatic Trans.	3	12	7
PME 1221	Front Suspension, Alignment and Power Steering	1	3	2
PME 1226	Auto Servicing or Elective	2	9	5
		6	24	14

NOTE: A diploma may be awarded for the successful completion of a *Four-Quarter Program.*
Co-op Summer Work (PME 1184) may be arranged for students who are pursuing the Six-Quarter Program.
A diploma may be awarded for the successful completion of a *Six-Quarter Program*

COSMETOLOGY (V 09)

Purpose of Curriculum

Today the cosmetologist is called upon to advise men and women on problems of make-up, diet, and care of the hair, skin and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair shaping, and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The first quarter of instruction consists of an introduction to cosmetology including the fundamentals of ethics, history theory, and practice. The class activities include practical lessons, lectures, demonstrations, student practice on wefts and mannequins.

The second quarter of instruction places more emphasis on manipulative skills. The acquisition of correct habits and skills is stressed. Practical work is done almost exclusively on patrons and models.

The third quarter correlates theory with practice in the study of related subjects and developing more advanced artistic skills.

In the fourth quarter the students are capable of doing work and are equipped for the state examination and outside work. Each student prior to finishing an application to the Cosmetic Arts Board for examination, is given a test both theoretical and practical.

For additional information pertaining to rules and regulations governing the cosmetology program we refer you to Chapter 354, Public Law 1943. This publication may be obtained by writing to North Carolina State Board of Cosmetic Art Examiners, Box 1108, Raleigh, North Carolina 27600.

Job Description

A trained beautician is in constant demand. She can find employment in the many beauty shops found in every community. A cosmetologist performs many functions in providing beauty services for customers. Some of the functions are manicuring, shampooing, hair shaping, hair styling, hair coloring, finger waving, wig care, rinses, permanent waving, facials, scalp treatments, bleaching, and other services demanded of a beautician.

COSMETOLOGY

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Intro to Ed	1	0	1
COS 1001	Scientific Study	4	6	6
COS 1011	Mannequin Practice	1	18	7
		6	24	14
SECOND QUARTER				
COS 1002	Scientific Study II	5	0	5
COS 1022	Clinical Application I	0	24	8
		5	24	13
THIRD QUARTER				
COS 1003	Scientific Study III	5	0	5
COS 1033	Clinical Application II	0	24	8
		5	24	13
FOURTH QUARTER				
COS 1004	Scientific Study IV	5	0	5
COS 1044	Clinical Application III	0	24	8

ENG 1102	Communication Skills	3	0	3
		8	24	16

DRAFTING—MECHANICAL (V 17)

Purpose of Curriculum

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations.

Each course is prepared to enable an individual to advance rapidly in drafting proficiency upon entering the field of work. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel—administrative, architects, engineers, skilled workmen—and must be able to communicate effectively with them. Courses to develop knowledge and skills in communication, human relations, economics and industrial organization are provided to assist the student in developing understanding and confidence in his relations with other persons.

Job Description

A draftsman prepares clear, complete, and accurate working plans and detail drawings, from rough or detailed sketches or notes for engineering or manufacturing pruposes, according to the specified dimensions: makes final sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. Makes any adjustments or changes necessary or desired. Inks in lines and letters on pencil drawings as required. Exercises manual skill in the manipulation of triangle and other drafting tools. Lays tracing paper on drawing and traces drawing in pencil or ink. Makes charts for representation of statistical data. Makes finished designs from sketches. Utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, and the drawing of necessary details. Prepares accurate scale drawings of parts or machines from specifications.

DRAFTING—MECHANICAL

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-DFT 101	Drafting	2	8	5
T-MEC 101	Machine Processes	1	5	3
ENG 1102	Communication Skills	3	0	3
MAT 1101	Fundamentals of Math	3	0	3
WLD 1129	Basic Welding	2	3	3
		12	16	18
SECOND QUARTER				
T-DFT 102	Drafting	2	8	5
T-MEC 102	Machine Processes	1	5	3
MAT 1102	Algebra	5	0	5
PHY 1101	Applied Science	2	4	4
		11	17	18
THIRD QUARTER				
T-DFT 103	Drafting	2	9	5
MAT 1104	Trigonometry	3	0	3
PHY 1102	Applied Science	2	4	4

T-PHY 106	Applied Mechanics	5	0	5
T-ENG 204	Oral Communications	3	0	3
		15	13	20

FOURTH QUARTER

T-DFT 201	Drafting	3	9	6
T-DFT 204	Descriptive Geometry	2	4	4
T-MEC 205	Strength of Materials	3	2	4
T-MEC 210	Physical Metallurgy	3	3	4
		11	18	18

ELECTRICAL INSTALLATION AND MAINTENANCE (V 18)

On the completion of the electrical installation and maintenance course, one would be prepared to enter into the electrical field as an assistant electrician in any of two general areas.

1. Construction area: This would include new wiring, rewiring of residential, commercial, and industrial buildings.
2. Maintenance area: This would include installation and maintenance of motors, motor controls and industrial electronics.

He will have acquired a basic knowledge of the National Electrical Code—as to wiring design, wiring methods, materials and equipment for general uses. He will have developed a skill in using electrical prints, trouble-shooting, electrical controls and the repair of electrical and electronic equipment. He will have acquired a basic knowledge of business procedures and organization.

Within four to six years upon completion of this course and with dedication to one's work, he will become a highly skilled electrician craftmen in his area.

ELECTRICAL INSTALLATION AND MAINTENANCE

CURRICULUM BY QUARTERS

Course Title		Class	Lab	Quarter Credit
FIRST QUARTER				
T-GUI 101	Introduction to Education	1	0	1
ELC 1112	Direct and Alternating Current	4	12	8
ENG 1101	Reading Improvement	2	0	2
MAT 1115	Electrical Math	5	0	5
PSY 1101	Human Relations	3	0	3
DFT 1110	Blueprint Reading: Building Trade	0	3	1
		15	15	20

SECOND QUARTER

ELC 1113	Alternating and Direct Current Machines and Controls	5	14	10
ENG 1102	Communication Skills	3	0	3
DFT 1113	Blueprint Reading: Electrical	0	3	1
PHY 1101	Applied Science	2	4	4
		10	21	18

THIRD QUARTER

ELC 1124	Residential Wiring	5	9	8
ELC 1125	Commercial and Industrial Wiring	2	9	5
PHY 1102	Applied Science	2	4	4
		9	22	17

FOURTH QUARTER

ELN 1118	Industrial Electronic Fundamentals	4	8	7
ELN 1119	Industrial Electronic Controls	4	11	8
BUS 1103	Small Business Operations	3	0	3
		11	19	18

ELECTRONIC DATA PROCESSING (T-22)

(One-Year)

Purpose of Curriculum

This curriculum will provide the student a quicker entry into the job market than two-year data processing curriculum. Emphasis is placed on data processing material to the exclusion of related and elective courses; however, the curriculum is considered open-ended in that it parallels the two-year curriculum up to a point, and the student may return as his time permits to obtain courses for the associate degree.

Job Description

The data processing specialist often is called upon to perform many varied tasks in a computer center. He is required frequently to operate and program the computer system. He may be a member of a programming team, whose responsibility is to prepare programs for computer solution through joint effort. He may be asked to transform the general requirements of accountants, business manager, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals he may be required to update, revise, correct, and write programs as the needs of management dictate.

ONE-YEAR CURRICULUM

	Course Title	Class	Lab	Credit
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-ENG 101	Grammar	3	0	3
EDP 101	Computers and Programming I	4	4	6
BUS 101	Introduction to Business	5	0	5
		13	4	14
SECOND QUARTER				
T-ENG 102	Composition	3	0	3
T-BUS 120	Accounting I	5	2	6
EDP 102	Computers and programming II	4	4	6
T-MAT 101	Tech. Math	5	0	5
		17	6	20
THIRD QUARTER				
EDP 208	Systems and Programming Applications I	4	4	6
EDP 214	Practicum	0	15	5
T-ENG 103	Report Writing	3	0	3
		7	19	14
FOURTH QUARTER				
T-ENG 204	Oral Communication	3	0	3
EDP 202	Compiler Language II	4	4	6
EDP 217	Data Processing Project	1	8	5
		8	12	14
TOTAL QUARTER HOURS IN COURSES				63

FURNITURE PRODUCTION ASSISTANT (V 40)

(Diploma Program)

This curriculum was developed by the furniture industry advisory committee and this Institute with the primary purpose of better performance on the job. This would include people who have Furniture Production jobs, but want to improve themselves, and people without jobs who want to become qualified to obtain one.

Graduates of this curriculum will be awarded an appropriate diploma and may transfer credit into the degree program if they desire to do so. They may serve the industry as machine operations checker, stock control man, expediter, sub-foreman, drafting, liaison many, production control clerk, section or group leader, supervisory trainee, project man, sample man, and bill out man.

FURNITURE PRODUCTION ASSISTANT

CURRICULUM BY QUARTERS

		Hours Per Week		Quarter Hours Credit
	Course Title	Class	Lab	
FIRST QUARTER				
GUI 101	Introduction to Education	1	0	1
T-DFT 101F	Technical Drafting	2	6	4
T-FUR 104	Characteristics of Woods	2	0	2
T-FUR 108	Production Equipment I	4	0	4
T-PSY 206	Applied Psychology	3	0	3
T-BUS 111	Collecting and Reporting Information	2	2	3
		14	8	17
SECOND QUARTER				
T-DFT 102F	Technical Drafting	2	6	4
T-FUR 102	Construction and Billing I	1	3	2
T-FUR 109	Production Equipment II	4	0	4
T-FUR 106	Abrasive Material and Methods	2	2	3
T-FUR 105	Glues	1	0	1
		10	11	14
THIRD QUARTER				
T-FUR 112	Routing Scheduling and Processing	2	2	3
T-FUR 103	Construction and Billing II	1	3	2
T-ISC 203	Motion Study	2	2	3
T-DFT 103F	Technical Drafting	2	6	4
		7	13	12
FOURTH QUARTER				
T-ISC 202	Quality Control	3	0	3
T-FUR 107	Finishing Methods	2	2	3
T-ISC 103	Production Control	1	3	2
BUS 285	Cost Records and Estimation	2	0	2
T-ISC 207	Foremanship Supervision	3	0	3
T-ISC 201	Industrial Org. & Management	3	0	3
		14	5	16

MACHINIST (V 32)

Purpose of Curriculum

This curriculum was prepared to meet a definite need for training of machinists. Surveys show that many existing industries lack time and facilities for training enough machinists to meet present and future needs. Expanding industries located in our state and new industries invariably express the need for skilled craftsmen who have the background, knowledge, and potential to advance.

This program will give students the opportunity to acquire skills and related information necessary to gain employment in the machine shop industry.

Job Description

The machine shop is the backbone of our present economy and requires a special skilled worker to perform the complex operations involved. The machinist is the skilled worker who shapes metal parts by using machine tools and proper total shop practice. His training and work experience enables him to plan and carry through the operations needed in turning out a machined product. A machinist is able to select the proper tools, materials, and methods required for each job and to plan the cutting and finishing operations called for on the blueprint or written instructions. He is able to make most standard shop computations related to tooling, feeds, speeds, and dimensions of the work. He is able to use precision measuring instruments such as micrometers, vernier calipers, vernier height gages, and indicators to maintain accuracies of his work to, sometimes, within thousandths of an inch.

The skilled worker must be able to set up and operate most types of machine tools such as drill presses, lathes, milling machines, boring machines, and grinders. In addition to most "standard" machines, he also spends time setting up and operating some more productive machines such as numerical tape controlled machines, turret lathes and automatic screw machines. He also becomes familiar with the composition of metals so as to be able to select, heat treat and quench parts to improve their mechanical properties.

His wide knowledge enables him to turn a piece of metal into an intricate, precise final product.

MACHINE SHOP

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
GUI 101	Int. to Education	1	0	1
MEC 1101	Shop Processes	4	12	8
MAT 1101	Fund. of Math	3	0	3
DFT 1104	Blue Print Reading	0	3	1
WLD 1129	Welding	2	3	3
		10	18	16

SECOND QUARTER

MEC 1102	Shop Processes	3	15	8
DFT 1105	Blueprint Reading & Sketching	0	3	1
MAT 1102	Algebra	5	0	5
ENG 1102	Comm. Skills	3	0	3
		11	18	17

THIRD QUARTER

MEC 1103	Shop Processes	3	15	8
MAT 1104	Trigonometry	3	0	3
MEC 1115	Treatment of Ferrous Metals	2	3	3
DFT 1106	Blueprint Reading & Sketching	0	3	1
		8	21	15

FOURTH QUARTER

MEC 1104	Shop Processes	3	12	7
MEC 1116	Treatment of Non Ferrous Metals	2	3	3
MAT 1123	Machinist Math	3	0	3
MEC 1122	Production Processes	4	3	5
		12	18	18

PLASTICS

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Lab	Quarter Hours Credit
FIRST QUARTER				
T-ISC 102	Industrial Safety	3	0	3
T-PLA 101	Introduction to Plastics	2	3	3
T-DFT 104	B.P. Reading: Mechanical	0	3	1
T-MAT 101	Technical Mathematics	5	0	5
ENG 100	Reading Improvement	2	0	2
GUI 101	Introduction to Education	1	0	1
		13	6	15
SECOND QUARTER				
T-MEC 101	Machine Process	1	5	3
T-PLA 105	Plastic Forming	2	6	4
T-DFT 105	B.P. Reading & Sketching	0	3	1
T-MEC 217	Engineering Mat., Proc., Test.	3	3	4
T-MAT 102	Technical Mathematics	5	0	5
		11	17	17
THIRD QUARTER				
T-PLA 107	Plastics Forming	6	6	8
T-PLA 106	Materials Compounding	3	2	4
T-MEC 102	Machine Process	1	5	3
T-MEC 235	Hydraulic & Pneumatics	3	3	4
		13	16	19

FOURTH QUARTER

T-PLA 118	Fabricating, Lam., Finishing	3	0	3
T-PLA 135	Physical Prop. of Plastics	2	3	3
T-PLA 117	Plastics Forming	3	6	5
T-MEC 103	Machine Process	1	5	3
T-MEC 101	Basic Electricity	2	3	3
		11	17	17

PRACTICAL NURSING EDUCATION (V 38)

Purpose of Curriculum

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand an increased number of well-trained personnel for health services. Realizing this need, the State Department of Community Colleges, in conjunction with local hospitals, administers programs of practical nurse education in local school systems, community colleges and technical institutes throughout the state.

The aim of the practical nurse education program is to make available to qualified persons the opportunity to prepare for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions.

Students are selected on the basis of demonstrated aptitude for nursing as determined by pre-entrance tests, interviews with faculty members, high school record, and reports of medical and dental examinations.

Throughout the one-year program, the student is expected to grow continuously in acquisition of knowledge and understandings related to nursing, the biological sciences, the social sciences, and in skills related to nursing practice, communications, interpersonal relations, and use of good judgment. Evaluation of student performance consists of tests on all phases of course content, evaluation of clinical performance, and evaluation of adjustment to the responsibilities of nursing. A passing score is required on all graded work, plus demonstrated progress in application of nursing skills to actual patient care.

Job Description

Graduates of accredited programs of practical nurse education are eligible to take the licensing examination given by the North Carolina Board of Nursing. This examination is given three times each year, usually in April, June, and October. A passing score entitles the individual to recieve a license, and to use a legal title "Licensed Practical Nurse." The license must be renewed every two years.

The LPN is prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices, vetenarian offices, and, in some localities, public health facilities. In all situations, the LPN functions under supervision of a registered nurse and/or licensed physician. This supervision may be minimal in situations where the patient's condition is stable and not complex; or it may consist of continuous direction in situation requiring the knowledge and skills of the registered nurse or physician. In the latter situation, the LPN may function in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program can prepare the individual.

Job requirements for the licensed practical nurse include suitable personal characteristics, ability to adapt knowledge and understandings of nursing principles to a variety of situations, technical skills for performance of bedside nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and help others, and readiness to conform to the requirements of nursing ethics and hospital policies.

PRACTICAL NURSING

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
T-GUI 101	Introduction to Education	1	0	1
PSY 1101	Human Relations	3	0	3
NUR 1101	Basic Science	6	3	7
BUS 1134	Personal Development	3	0	3
NUR 1102	Introduction to Patient Care	9	3	10
MAT 1101N	Mathematics	3	0	3
		25	6	27
SECOND QUARTER				
NUR 1103	Medical-Surgical Nursing I	4	0	4
NUR 1104	Hospital Care of Patients*	0	24	8
NUR 1109	Maternal & Infant Care	4	0	4
NUR 1110	Care of Infants & Children	4	0	4
		12	24	20
THIRD QUARTER				
NUR 1105	Medical-Surgical Nursing II	9	0	9
NUR 1106	Hospital Care of Patients*	0	24	8
NUR 1111	Drug Administration	3	0	3
		12	24	20

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* This may be one or combination of clinical experiences in Obstetrical, Pediatric, or Medical-Surgical Nursing.

FOURTH QUARTER				
NUR 1107	Medical-Surgical Nursing III	12	0	12
NUR 1108	Hospital Care of Patients*	0	24	8
		12	24	20

UPHOLSTERING (V 82)

Upholstering offers both men and women excellent employment opportunities in industry or operating their own business. It is among the most skilled and better paying occupations in the furniture industry. The primary emphasis in the following programs is upon actual practical experience in the springing up, covering, trimming, cutting, and sewing phases of upholstery. Emphasis throughout is placed upon quality and the development of production speed.

UPHOLSTERY

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
UPH 1111	Upholstery Materials and Methods I	1	11	5
SECOND QUARTER				
UPH 1112	Upholstery Materials and Methods II	1	11	5
THIRD QUARTER				
UPH 1113	Upholstery Materials and Methods III	1	11	5

SEWING

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
UPH 1114	Upholstery Sewing I	1	11	5
SECOND QUARTER				
UPH 1115	Upholstery Sewing II	1	11	5

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* This may be one or combination of clinical experiences in Obstetrical, Pediatric, or Medical-Surgical Nursing.

CUTTING

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
UPH 1116	Upholstery Cutting I	1	11	5
SECOND QUARTER				
UPH 1117	Upholstery Cutting II	1	11	5

Note: A certificate will be awarded for the successful completion of each individual program.
A diploma will be awarded for the successful completion of the seven quarter program.

WELDING (V 50)

Purpose of Curriculum

The content of this curriculum is designed to give students sound understanding of the principles, methods, techniques and skills essential for successful employment in the welding field, and skills essential in metals industry. The fifth and sixth quarter options will enable students to serve as a maintenance foreman or an advanced welder or a fabrication man.

Job Description

The principal duty of the welder who uses manual techniques is to control the fusion of metals by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. He should possess a great deal of manipulative skill with a knowledge of jigs, mathematics, basic metallurgy, and blueprint reading.

A well-trained welder may find employment in many different industries. Shipbuilding, automotive, aircraft, guided missiles, railroad, tank construction, and pipe fitting industries are examples of manufacturing concerns which employ welders.

WELDING

CURRICULUM BY QUARTERS

	Course Title	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
FIRST QUARTER				
T-GUI 101	Introduction to Education	1	0	1
WLD 1120	Oxyacetylene Welding and Cutting	3	13	7
MAT 1101	Fundamentals of Math	3	0	3
PSY 1101	Human Relations	3	0	3

ENG 1101	Reading Improvement	2	0	2
DFT 1104	Blueprint Reading: Mechanical	0	3	1
		12	16	17

SECOND QUARTER

WLD 1121	Arc Welding	3	12	7
MAT 1103	Geometry	3	0	3
DFT 1117	Blueprint Reading: Welding	0	3	1
ENG 1102	Communication Skills	3	0	3
PHY 1101	Applied Science	2	4	4
		11	19	18

THIRD QUARTER

WLD 1123	Inert Gas Welding	1	3	2
WLD 1124	Pipe Welding	3	12	7
PHY 1102	Applied Science	2	4	4
DFT 1118	Pattern Development and Sketching	0	3	1
WLD 1112	Mechanical Testing and Inspection	1	3	2
		7	25	16

FOURTH QUARTER

WLD 1122	Commercial and Industrial Practices	3	9	6
WLD 1125	Certification Practices	3	6	5
MEC 1117	Structure of Metals	3	2	4
BUS 1105	Industrial Organization	3	0	3
		12	17	18

FIFTH QUARTER (Optional)

WLD 1126	Adv. Metal Inert Gas Welding	2	8	5
MEC 1113	Mach. Shop Processes	2	3	3
WLD 1131	Design of Welded Structures	3	6	5
T-ISC 102	Industrial Safety	3	0	3
	Elective	3	0	3
		13	17	19

SIXTH QUARTER (Optional)

WLD 1132	Adv. Tungsten Inert Gas Welding	2	8	5
MEC 1114	Mach. Shop Processes	2	3	3
WLD 1133	Operations of the Job Shop	5	3	6
T-BUS 272	Effective Supervisory Practice	3	0	3
WLD 1134	Welding Power Supplies	3	1	3
		15	15	20

Note: A diploma will be awarded for the successful completion of a four quarter program.

A "Special" diploma will be awarded for the successful completion of a six quarter program.

COURSE DESCRIPTIONS

COURSE NUMBERING SYSTEM

1—Freshman Technical Courses are indicated by a three-letter prefix preceded by the letter "T" and numbered between 100 and 200.

2—Sophomore Technical Courses are indicated by a three-letter prefix preceded by the letter "T" and numbered between 200 and 300.

3—Vocational Courses are indicated by a three-letter prefix and numbered between 1000 and 2000.

4—Transfer Courses are indicated by a three-letter prefix and numbered between 100 and 300.

5—Preparatory courses are indicated by a 3 letter prefix and number below 100.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit

ART

ART 101 Art Appreciation	3	0	3

An introduction to fundamental elements and principles of creative art expression emphasizing composition, design, shape, value, styles, and movements. Prerequisite: None.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit

AUDIOVISUAL

EDM 104 Audiovisual Equipment 2 2 3

A survey course as to the nature and use of audio-visual materials. (AV-ITV-VTR) Emphasis is on the care and operation of equipment, the communication characteristics of the various non-print media, and the utilization of A-V services in a learning resource centers. Prerequisite: None.

EDM 105 Introduction to Production 2 3 3

A course involving special laboratory work so that the students will be capable of producing materials, such as 2'' x 2'' slides, transparencies, audio tapes, and dry mount materials suitable for use in the learning environments. The student will also be able to operate duplicating machines and the various components of video tape recording systems to assist in the production of video taped programs. Prerequisite: EDM 104

AUTOMOTIVE

PME 1101 Internal Combustion Engine 3 12 7

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing. Prerequisite: None.

PME 1101-1 (Part time) 2 6 4
PME 1101-2 (Part time) 1 7 3

PME 1102 Engine Electrical and Fuel Systems 5 15 10

A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system. Prerequisite: PME 1101.

PME 1102-1 (Part time) 2 6 4
PME 1102-2 (Part time) 2 6 4
PME 1102-3 (Part time) 1 3 2

PME 1121 Braking Systems (Truck) 2 3 3

A complete study of various braking systems used on automobiles and light trucks. Emphasis is placed on how they operate, the proper adjustment and repair. Prerequisite: None.

PME 1126 Small Engine Repair 2 3 3

The small engine repair is offered to train people in the maintenance and overhaul of the two and four cycle engines. Enrollees are taught to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major responsibilities of the course. Prerequisite: PME1101 or work experience.

PME 1184 Co-op Work (Min.) 0 15 5

This is full-time or part-time pre-arranged on-the-job training. The student is placed in a garage to gain experience during the summer and by contract, verbal or written, returns to the institution for the fall term. He enrolls at the school and is supervised by his instructor. Prerequisite: Three or more quarters of instruction.

Quarter
Hours Per Week Hours
Class Lab Credit

PME 1202 Auto Electrical/Electronics 4 9 7

A thorough study of the theory and operation of various automobile electrical units and systems. Maintenance and testing procedures, diagnosis and repair of all types of electrical/electronic components, especially the transistor circuits, found on the modern automobile. Prerequisite: PME 1102.

PME 1202-1 (Part time) 2 6 4
PME 1202-2 (Part time) 2 2 3

PME 1203 Automotive Engine Tune-up 4 9 7

This course is designed to provide depth in the understanding and use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units on the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate his ability to diagnose malfunctions in ignition systems, cranking motors and charging circuits. Prerequisite: PME 1102; DFT 1102.

PME 1203-1 Part time) 2 6 4
PME 1203-2 (Part time) 2 2 3

PME 1214 Advanced Air Conditioning Repair 3 3 4

In depth study of the principles of refrigeration; extensive practice in disassembly and the assembly of the component parts; diagnosis of malfunctioning; the proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience.

PME 1221 Front Suspension, Alignment and Power Steering 1 3 2

Theory of operation, correct disassembly and mounting of all front suspension parts on various types of frames (car and light truck). A thorough understanding of the function and repair of steering gears (Power and standard), shock absorbers, springs, wheels and tires, pumps, rams, etc. is gained. Theory and application of steering geometry, correct diagnosis of problems and use of the alignment and balancing machines; analysis and correction of tire wearing problems, vibrations, hard steering, pulling, etc. is experienced. Prerequisite: AUT 1123.

PME 1224 Advanced Automatic Transmissions 3 12 7

This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and "trouble-shooting" procedures and repair of various types of automatic transmissions. Prerequisite: PME 1124.

PME 1224-1 (Part time) 2 6 4
PME 1224-2 (Part time) 1 7 3

PME 1225 Auto Engine Trouble Shooting 2 9 5

In this course, the general principles of engine "trouble-shooting" including the electrical and fuel systems are gained. In addition, a study is made of the engine design and construction along with the four-stroke cycle and the two-stroke cycle principles of engine operation. The details of the engine lubrication, maintenance, and operation of cooling systems are stressed. Prerequisite: PME 1101 or work experience.

PME 1125-1 (Part time) 1 7 3
PME 1225-2 (Part time) 1 3 2

PME 1226 Automobile Servicing II 2 9 5

Emphasis is placed on "trouble-shooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in depth experiences in diagnosis, testing, adjusting, repairing, and replacing components parts. Prerequisite: AUT 1125.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
PME 1226-1 (Part time)	1	7	3
PME 1226-2 (Part time)	1	3	2

PME 1227 Power Accessories	5	0	5

This course is designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, radio antennas; etc. It should insure the development of the student's ability to understand and trace out the circuits of the electrical accessories, to enhance his skill in diagnosing troubles and repairing damaged circuits. He will apply his knowledge in drawing and reading schematic diagrams of electrical circuits. Prerequisite: PME 1202 or work experience.

AHR 1101 Automotive Air Conditioning	2	2	4

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system. Use of testing equipment in diagnosing trouble, conducting efficiency tests and general maintenance work. Prerequisite: PHY 1101.

AUT 1123 Brakes, Chassis and Suspension Systems	3	12	7

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair. Also, the servicing of parking brakes is emphasized. Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension systems. Prerequisite: None.

AUT 1123-1 (Part time)	2	6	4
AUT 1123-2 (Part time)	1	7	3
AUT 1124 Automotive Power Train Systems	3	12	7

Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair. Prerequisite: AUT 1123.

AUT 1124-1 (Part time)	1	7	3
AUT 1124-2 (Part time)	2	6	4
AUT 1125 Auto Servicing I	3	9	6

Emphasis is on the shop procedures necessary in "trouble-shooting" the various component systems of the automobile. "Trouble-shooting" of automotive systems, provides a full range of experiences in testing, adjusting, repairing and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: PME 1102, AUT 1123, AHR 1101.

AUT 1125-1 (Part time)	1	3	2
AUT 1125-2 (Part time)	2	6	4

BIOLOGY

T-BIO 101 Biological Science	3	0	3

A general outline of the fundamentals of biological science with special emphasis on those concepts and skills which pertain to the structure and function of living things. Prerequisite: None.

BIO 101 General Biology	3	3	4

An introduction to the biological concepts; a study of the chemical and physical structure of the living cell. Various animal groups are studied from the point of view of structure, function, and habitat. Prerequisite: None.

	Hours Per Week Class	Lab	Quarter Hours Credit
BIO 102 General Biology	3	3	4

A continuation of BIO 101, including a study of various plant groups approached from the point of view of structure, function, and habitat. Prerequisite: BIO 101.

BIO 103 General Biology 3 3 4

A continuation of BIO 102 with emphasis on specific concepts such as genetics, and evolution. Prerequisite: BIO 102.

BIO 108 Anatomy & Physiology 3 2 4

The student will receive a basic knowledge of the various systems, structures, and organs of the body and their functions. Emphasis will be placed on the skeletal system and its function. Prerequisite: None.

BIO 109 Anatomy & Physiology 3 2 4

The student will learn to interpret accurately requests for x-ray examinations, to properly position the part or area to be radiographed. Emphasis will be placed on the eye and ear, muscular system, circulatory system, digestive system, urinary system, and reproductive system. Prerequisite: BIO 108

BIO 201 Botany I 3 2 4

The morphology, physiology, reproduction and ecological relationships of non-seed producing plants. Prerequisite: BIO 103.

BIO 202 Botany II 3 2 4

The morphology, physiology, reproduction and ecological relationships of seed producing plants. Prerequisite: BIO 201.

BIO 206 Invertebrate Zoology 3 2 4

A study of the structure, physiology, and taxonomy of the invertebrates. Prerequisite: BIO 103.

BIO 207 Vertebrate Zoology 3 2 4

A systematic survey of the major groups of vertebrate animals. Prerequisite: BIO 103.

BIO 208 Medical & Surgical Diseases 3 0 3

A course to acquaint the student with certain changes that occur in disease and injury and their application to x-ray technology. Emphasis is placed on the features of the various conditions which should be known by the technologist in performance of the indicated x-ray examinations. Prerequisite: RDT 201.

BUSINESS EDUCATION

BUS 101 Introduction to Business 5 0 5

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management.

BUS 102 Typewriting 2 3 3

Emphasis on the study of keyboard, the mechanics necessary for acquisition of typewriting skills, and development of speed and accuracy. Prerequisite: none.

BUS 103 Typewriting 2 3 3

Emphasis on improvement of typewriting skills, manuscripts, business letters, tabulations, and increased speed and accuracy. Prerequisite: BUS 102 or approval of instructor.

BUS 104 Typewriting 2 3 3

Emphasis on production typing, preparation of budgets, business letters, and various business and legal forms. Prerequisite: BUS 103, or the equivalent.

BUS 106 Shorthand 2 3 3

Principles of Gregg shorthand. Presentation of theory with extensive practice in reading and writing.

Hours Per Week Class Lab — Quarter Hours Credit

BUS 107 Shorthand 2 3 3

A review of fundamental principles, with additional emphasis on speed, accuracy, fluency, and vocabulary. Also an introduction to transcription. Prerequisite: BUS 106 or the equivalent.

BUS 108 Shorthand 2 3 3

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Prerequisite: BUS 107.

BUS 110 Office Machines 2 2 3

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator. Prerequisite: None.

T-BUS 111 Collecting and Reporting Information 2 2 3

Designed to aid the student in the methods of collecting various types of data needed in the furniture industry for better cost estimates and analysis. Emphasis will be placed on accurate methods of collecting and presenting data in an effective method. Prerequisite: None.

BUS 112 Personal Finance 3 0 3

Covers personal and family finance, budgeting, saving, insurance, real estate, stock market and other investment media. Prerequisite: None.

BUS 115 Business Law 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies. Prerequisite: None.

BUS 116 Business Law 3 0 3

Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115.

BUS 120 Principles of Accounting 3 1 3

Methods of modern accounting practice, theory of accounting as a management information system, study of the accounting cycle and presentation of financial statements, methods and practices applicable to formal organizations.

T-BUS 120 Accounting 5 2 6

Principles, techniques, and tools of accounting, for understanding of the mechanics of accounting. Collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises, to include practical application of the principles learned. Prerequisite: MAT 110 or T-MAT 101.

BUS 121 Principles of Accounting 3 1 3

Continuation of the study of accounting principles and practices, emphasis on managerial accounting tools for decision making. Prerequisite: BUS 120.

T-BUS 121 Accounting 5 2 6

Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on recording, summarizing, and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems. Prerequisite: T-BUS 120.

BUS 122 Principles of Accounting 3 1 3

A critical examination and analysis of accounting principles, determination of cost and income, valuation and statement presentation, current problems presented in accounting literature and business cases. Prerequisite: BUS 121.

BUS 123 Business Finance 3 0 3

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing. Prerequisite: None.

BUS 124 Business Finance 3 0 3

Financing, federal, state, and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies. Prerequisite: BUS 123.

BUS 134 Personal Development 3 0 3

Designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and method of personal development. Prerequisite: None.

BUS 183M Terminology and Vocabulary 3 0 3

To develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices. Prerequisite: BUS 107. (BUS 183E—Elective for Executive Secretary)

BUS 190 Investment Fundamentals 3 0 3

A presentation of the various investment opportunities available in stocks and bonds. Will include an indepth study of how and why stocks and bonds are bought and sold. Prerequisite: None.

BUS 195 Small Business Management 3 0 3

This course is designed to emphasize those aspects of management that are uniquely important to small firms and self-employed individuals. The course will afford the students practice in decision making on the same types of problems that small businessmen face as they make decisions. Emphasis will be placed on organization, financing, record keeping, and management. Prerequisite: none.

BUS 205 Advanced Typewriting 2 3 3

Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, methods of duplication, statistical tabulation, and the typing of reports, manuscripts and legal documents. Prerequisite: BUS 104. Speed requirement, 50 words per minute for five minutes.

BUS 206E Dictation and Transcription 3 2 4

Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varrying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material. Prerequisite: BUS 108.

BUS 206M Dictation and Transcription (Medical) (4) 3 2 4

Develops the skills of taking dictation and transcribing materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Prerequisite: BUS 108.

BUS 207E Dictation and Transcription 3 2 4

Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material. Prerequisite: T-BUS 206E.

BUS 207M Dictation and Transcription (Medical) (4) 3 2 4

Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the steno-

Hours Per Week Class Lab — Quarter Hours Credit

graphic requirements of business, technical, and professional offices. Prerequisite: BUS 206M.

BUS 208E Dictation and Transcription 3 2 4

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new materials. Prerequisite: BUS 207E.

BUS 208M Dictation and Transcription (Medical) (4) 3 2 4

Principally a speed-building course, covering materials appropriate to the course of study, with emphasis on neatness as well as accuracy. Prerequisite: Bus 207M.

BUS 211 Office Machines 2 2 3

Instruction in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictating and transcribing machines. Prerequisite: BUS 110.

BUS 212 Business Machine Transcription 1 2 2

A study and practice in the use of transcribing machines in business dictation. Proficiency in work usage, correct grammar, and letter styles will be emphasized. Prerequisite: BUS 103.

BUS 214 Secretarial Procedures 3 2 4

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, basic rules of filing, telephone techniques, travel information, telegrams, office records, purchasing of supplies office organization, and insurance claims. Prerequisite: None.

BUS 215M Office Application 6 0 6

During the sixth quarter only, students are assigned to work in a business, technical or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study. Prerequisite: BUS 214, BUS 205, BUS 208, BUS 211.

BUS 215E Office Application 6 0 6

During the sixth quarter only, students are assigned to work in a business, technical or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study. Prerequisite: BUS 214, BUS 205, BUS 208, BUS 211.

BUS 217 Business Law 3 0 3

A study of the powers, policies, methods, and procedures used by the various federal, state and local administrative agencies in promoting and regulating business enterprises. It includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action. Prerequisite: BUS 116.

BUS 219 Credit Procedures and Problems 3 0 3

Principles and practices in the extension of credit: collection procedures; laws pertaining to credit extension and collection are included. Prerequisite: MAT 110.

BUS 225 Cost Accounting 3 2 4

A detailed study of systems of cost accounting including process, job orders and standard costs. Usefulness of data to management is stressed. Prerequisite: T-BUS 121.

BUS 229 Taxes 3 2 4

Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: Income, payroll, intangible, capital gain, sales and use, excise, and inheritance, Prerequisite: T-BUS 121.

BUS 232 Sales Development 3 0 3

A study of retail, wholesale and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required. Prerequisite: None.

BUS 233 Personnel Management 3 0 3

Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, renumeration, labor relations, fringe benefits and security. Prerequisite: None.

BUS 235 Business Management 3 0 3

Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing and financing. Clarification of the decision-making function versus the operating function. Role of management in business-qualifications and requirements. Prerequisite: BUS 101, BUS 121.

BUS 237 Wholesaling 3 0 3

The development of wholesaling; present day trends in the United States. A study of the functions of wholesaling. Prerequisite: None.

BUS 239 Marketing 5 0 5

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process. Prerequisite: None.

BUS 243 Advertising 3 2 4

The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals; product and market research; selection of media; means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media. Prerequisite: None.

BUS 245 Retailing 3 0 3

A study of the role of retailing in the economy, including development of present retail structure, functions performed, principles governing effective operation and managerial problems resulting from current economic and social trends. Prerequisite: None.

BUS 247 Business Insurance 3 0 3

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. Prerequisite: None.

BUS 266 Budget and Record Keeping 3 0 3

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the role they play. Emphasis on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: T-BUS 121.

BUS 271 Office Management 3 0 3

Presents the fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing and actuating office problems. Prerequisite: None.

	Hours Per Week Class	Lab	Quarter Hours Credit
BUS 272 Principles of Supervision	3	0	3

Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision are stressed. Prerequisite: None.

BUS 276 Money and Banking	3	0	3

An application of money and banking theory and procedures including the functions of money, various phases of customer relations with banks, bank administrative policies, the Federal Reserve System, specialized financial institutions, and international monetary principles. Prerequisite: ECO 104 or ECO 203.

BUS 284M&E Terminology and Vocabulary (Medical) (Executive)	3	0	3

Greater emphasis on an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in a professional office. Prerequisite: BUS 183M.

BUS 285 Cost Records and Estimates	2	0	2

Cost estimation, equipment, materials and labor take off, overhead cost. The advantages and limitations of prorating items of cost will be considered. Prerequisite: MATH 110 or Consent of Advisor.

BUS 1101 Cost Records and Cost Estimates	2	0	2

Estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and storage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: None.

BUS 1103 Small Business Operations	3	0	3

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

	Hours Per Week Class	Lab	Quarter Hours Credit
BUS 1105 Industrial Organizations	3	0	3

Methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product cost. Prerequisite: None.

BUS 1111 Collecting & Reporting Information 2 2 3

The course deals with the development of methods of collecting different types of data and information needed in the furniture industry for better production control, cost estimates, and cost analysis. Emphasis will be given to accurate collections of data and methods of presenting it neatly and effectively. Prerequisite: None.

BUS 1134 Personal Development 3 0 3

Designed to teach the student the importance of good personality, to develop the type of personality that will assist in job success. Emphasis is placed on the principles of grooming in the areas of dress, make-up, hygiene and health. Prerequisite: None.

COSMETOLOGY

COS 1001 Scientific Study I 4 6 6

This is a course for beginners in Cosmetology. It includes a study of Professional Ethics, Grooming and Personality Development, Sterilization, Sanitation, First Aid and Bacteriology, Cosmetology Law, Anatomy, Chemistry, Nail Disorders, Manicuring, Hair, Scalp, Skin, and Disorders pertaining to the hair, scalp, and skin.

COS 1011 Mannequin Practice 1 18 7

A study of Finger Waving, Pin Curling, Rollers, Marcelling, Hair Relaxing, Shampooing and Rinses, Scalp Treatment, Hair Cutting, Permanent Waving, Hairdressing and Combing, Hair Tinting, Bleaching, Frosting, Streaking, Wig Care and Styling.

COS 1002 Scientific Study II 5 0 5

A classroom study of Skin, Scalp, Hair, Nails, and their Disorders, Salesmanship, Permanent Waving, Marcelling, Relaxing, Hairdressing, Wigs, and Hair Coloring.

COS 1022 Clinical Application I 0 24 8

A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of Bacteriology, Pin Curling, Finger Waving, Rollers, Permanent Waving, Marcelling, Chemical Relaxing, Hairdressing and Wigs, Manicuring and Pedicuring, Skin and Scalp Disorders, Hair Coloring, and Hair Cutting.

COS 1003 Scientific Study III 5 0 5

A classroom study of Anatomy, Manicuring, Chemistry, Cosmetics-Facials, Hair Styling, Theory of Massage, Scalp Treatments, Superfluous Hair Removal, Grooming and Hygiene.

COS 1033 Clinical Application II 0 24 8

This course gives continued laboratory practice and application of techniques in Hair Shaping, Professional Ethics, Manicuring, Chemistry, Cosmetics-Facials, Hair Styling, Hair Coloring (rinses, etc.) and Scalp Treatments.

COS 1004 Scientific Study IV 5 0 5

A classroom study of Chemistry, Sanitation, Sterilization, Hair Coloring and Lash and Brow Tinting, Artistry in Hair Styling, Beauty Salon Salesmanship Management, Electricity, Cold Waving and Hair Shaping.

	Hours Per Week Class	Lab	Quarter Hours Credit
COS 1044 Clinical Application III	0	24	8

A continued study of laboratory practices in Chemistry, Sanitation, Sterilization, Hair Coloring and Lash and Brow Tinting, Artistry in Hair Styling, Cold Waving, and Hair Shaping.

CHEMISTRY

CHM 101 General Chemistry I 3 3 4

Language of Chemistry; atomic theory and structure; non-metals and their compounds; gas laws; chemical changes; oxidation-reduction and acid base chemical equilibrium. Prerequisite: None.

CHM 102 General Chemistry II 3 3 4

Continuation of CHM 101. Solution chemistry; metals and their compounds, including semimirco qualitative analysis; introduction to basic organic chemistry. Prerequisite: CHM 101.

CHM 103 General Chemistry III 3 3 4

Continuation of CHM 102. Coordination chemistry; electro-chemistry; kinetics; thermochemistry; chemical thermodynamics; nuclear chemistry. Prerequisite: CHM 102.

CHM 201 Qualitative Analysis 3 6 5

A continuation of Chemistry 103. A study of selected elements and their compounds using a systematic scheme for the separation and identification of cations and anions and involving descriptive chemistry and chemical equilibrium. Prerequisite CHM 103.

T-CHM 205 Chemistry of Plastics 3 3 4

This course provides the student with a knowledge of organic chemistry and how it is used to make high polymers. The plastic resins which he or she fabricates. Opportunity to learn about modifiers and additives used with plastics is included. Prerequisite: T-PLA 106 or approval of advisor.

DATA PROCESSING

EDP 101 Computers and Programming I 4 4 6

An introduction to computers and computer programming. The course includes history of computers, data representation, numbering systems, flow-charting and an introduction to the RPG programming language. Prerequisite: None.

EDP 102 Computers and Programming II 4 4 6

This is a continuation of EDP 101 in which students will learn advanced features of RPG, file organization on disk and tape and the fundamental nature of an assembler type language. Prerequisite: EDP 101.

EDP 104 Introduction to Data Processing 3 2 4

Fundamental concepts and operational principles of data processing. The material and presentation are designed to familiarize non-data processing students with computer systems and their uses. Prerequisite: None.

EDP 125 Computer Programming 2 2 3

Students learn to write and execute computer programs in the FORTRAN language. Computerized solution of problems in the mathematical, scientific and engineering areas are emphasized. Prerequisite: None.

EDP 202 Compiler Language II 4 4 6

The student will learn the fundamentals of a procedure-oriented language

Hours Per Week — Class, Lab; Quarter Hours Credit

such as COBOL, FORTRAN or PL/I. The particular language is determined by the needs of the data processing community and the Advisory Committee. Prerequisite: EDP 102.

EDP 208 Systems and Programming Applications I 4 4 6

Developing an understanding of the systems approach by generating business oriented systems with the computer as a resource is the objective of this course. A realistic case study is the heart of the material. Prerequisite: EDP 102.

EDP 209 Systems and Programming Applications II 4 4 6

This course will require the student to employ the language of EDP 202 in developing systems in business applications. Prerequisite: EDP 202.

EDP 214 Practicum I 0 15 5

The student will be placed in a data processing installation to obtain practical experience. The time and location will vary. Prerequisite: EDP 102.

EDP 215 Practicum II 0 15 5

The student will spend time in a data processing installation; time and place will vary. In lieu of this course, the instructor and student might agree to an independent study. Prerequisite: EDP 214.

EDP 221 Computer Systems and Language Survey 2 2 3

An overview of developments in computer systems and software. The student is encouraged to develop expertise in an interactive language such as APL, BASIC or CPS. Prerequisite: EDP 208.

DRAFTING

T-DFT 101 Technical Drafting 2 8 5

The field of drafting is introduced as the student begins study of the graphic language, principles of mechanical drawing and orthographic projection. Skills and techniques are included in the areas of freehand lettering, geometrical constructions, sketching and shape description, multiview project and sectional views. Prerequisite: None.

T-DFT 102 Technical Drafting 2 8 5

The application of sectional views to more complex problems, primary and secondary auxiliary views, simple and successive revolutions and the importance of shop processes are studied. Principles of dimensioning and tolerancing are studied. Drawing of threads, fasteners and springs is introduced and the execution of design and working drawings is included. Prerequisite: T-DFT 101.

T-DFT 103 Technical Drafting 2 9 5

The practices of axonometric projection, oblique projection, and perspective projection. Intersections and developments will be studies, also the drawing of gears and cams, electronic diagrams, and reproduction and control of drawings. Prerequisite: T-DFT 102.

T-DFT 104 B.P. Reading: Mechanical 0 3 1

Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, dimensioning procedures and notes. Prerequisite: None.

T-DFT 105 B.P. Reading & Sketching 0 3 1

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operation, introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes. Prerequisite: T-DFT 104.

	Hours Per Week Class	Lab	Quarter Hours Credit
T-DFT 201 Technical Drafting	3	9	6

The field of drafting is expanded as the student is introduced to structural drawing, topographic drawing and mapping, pipe drawing, welding representation, graphs, alignment charts, empirical equations, and graphical mathematics. Prerequisite: T-DFT 103.

T-DFT 204 Descriptive Geometry	2	4	4

Graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization shall be stressed on every problem. Prerequisites: T-DFT 102, T-MAT 102.

T-DFT 205 Design Drafting I	2	8	5

Basic design is introduced in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings and simplified drafting practices constitute areas of study. Types of methods of specifying materials and workmanship are an integral part of the course. Prerequisites: T-DFT 204, T-MAT 102, PHY 102.

T-DFT 206 Design Drafting II	2	8	5

Research to solve a problem in design by consulting various manuals, periodicals, and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and sub-assembly drawings, pictorial drawings, exploded pictorial assembly, patent drawings and specifications are required as a part of the problem. Prerequisites: T-DFT 205, T-DFT 210.

T-DFT 211 Mechanisms	3	2	4

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cam, belts, pulleys, gears and gear trains. Prerequisites: T-DFT 201 and 204, T-MAT 103, T-PHY 106.

T-DFT 212 Jig and Fixture Design	2	6	4

Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jigs and fixtures and their design. Prerequisites: T-DFT 205, T-DFT 211.

DFT 1101 Schematics & Diagrams: Power Mechanics	0	3	1

Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None.

DFT 1102 Schematics and Diagrams: Power Mechanics (Electrical and Fuel Systems)	1	3	2

Interpretation and reading of schematic prints and diagrams. Making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Learning to identify the various components of the systems by sketching and labeling parts. Practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals. Prerequisite: DFT 1101.

DFT 1103 Schematics and Diagrams: Power Mechanics (Chassis and Braking Systems)	0	3	1

Interpretation of prints, schematics and diagrams pertaining to automotive chassis and braking systems. A study of components that make up the front

	Hours Per Week Class	Lab	Quarter Hours Credit

suspension, differential assembly and brake assemblies. Prerequisite: DFT 1101, DFT 1102.

DFT 1104 Blueprint Reading: Mechanical	0	3	1

Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, dimensioning procedures and notes. Prerequisite: None.

DFT 1105 Blueprint Reading: Mechanical	0	3	1

Further practice in interpretation of blueprints as they are used in Industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes. Prerequisite: DFT 1104.

DFT 1106 Blueprint Reading: Mechanical	0	3	1

Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrications, construction and assembly. Prerequisite: DFT 1105.

DFT 1110 Blueprint Reading: Building Trade	0	3	1

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None.

DFT 1111 Blueprint Reading & Sketching	0	3	1

Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches and cavity wall construction. Development of proficiency in making three view and pictorial sketches. Prerequisite: DFT 1110.

DFT 1112 Blueprint Reading & Sketching	0	3	1

Designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings will be studied with emphasis on the plot plan, basement and/or foundation plan, walls and various detailed drawings of masonry work. Prerequisite: DFT 1111.

DFT 1113 Blueprint Readings: Electrical	0	3	1

Interpretation of schematics, diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be a part of this course. Prerequisite: DFT 1110.

DFT 1117 Blueprint Reading: Welding	0	3	1

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications. Prerequisite: DFT 1104.

DFT 1118 Pattern Development and Sketching	0	3	1

Continued study of welding symbols; methods used in layout of sheet steel; sketching of projects, jigs and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prerequisite: DFT 1104.

ECONOMICS

ECO 102 Economics	3	0	3

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws

Hours Per Week Class Lab — Quarter Hours Credit

of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large. Prerequisite: None.

ECO 104 Economics 3 0 3
Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems. Prerequisite: ECO 102.

ECO 108 Consumer Economics 3 0 3
Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources, and to understand better the economy in which he lives. Prerequisite: None.

ECO 200 General Economics 3 0 3
A general survey course in elementary economics. A brief treatment of the production and distribution of wealth in society, money and banking, and the organization of business.

ECO 201 Principles of Economics I 3 0 3
Basic economics with attention to control problems of price, competition and money; supply and demand; business organization; firm and family income; labor and industrial relations; government and the economy; gross national product; relationship of income to expenditures; and business cycles. Prerequisite: None.

ECO 202 Principles of Economics II 3 0 3
Historical development of economic thought; creation of money; banking and the Federal Reserve System; monetary and fiscal policy; price, utility and costs in selected industries, competition and trade. Prerequisite: ECO 201.

ECO 203 Principles of Economics III 3 0 3
Distribution of income; factors of production; wages and collective bargaining; interest and capital; profits and incentives, international payments, trade and gold flow; current economic problems. Prerequisite: ECO 202.

EDUCATION

EDU 201 Introduction to Education 3 0 3
A study of education as an institution in society. Emphasis is on the educational system in the United States, its functions, organization, and its history.

ELECTRICAL

T-ELC 101 Basic Electricity 2 3 3
A course in the basic understanding and application of electricity to modern industrial machinery. Included is a study of direct current motors, motor controls and protecting devices, transformer, and the industrial applications of this equipment. Prerequisite: None.

T-ELC 201 Electrical Machinery 3 0 3
A course in the basic understanding and application of electricity to modern industrial machinery. Included is a study of direct current motors, motor controls and protecting devices, transformers, and the industrial applications of this equipment.

ELC 1112 Direct and Alternating Current 5 12 9
A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. An analyses of direct current circuits by Ohm's Law and

	Hours Per Week Class	Lab	Quarter Hours Credit

Kirkchhoff's Law. A study of the sources of direct current voltage potentials. Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits. Prerequisite: None.

ELC 1112-1 Orientation and Theory of Direct Current (Part time) 2 6 4

ELC 1112-2 Theory of Alternating Current 2 6 4

ELC 1113 Alternating Current and Direct Current **and Machines and Controls** 5 14 10

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or sequencing switches. Prerequisites: ELC 1112, MAT 1115.

ELC 1113-1 Alternating Current and Direct Current Motor Generators, and Transformers (Part time) 2 6 4

ELC 1113-2 Alternating Current and Direct Current Controls (Part time) 2 6 4

ELC 1121 Electrical Machines and Controls 2 2 3

An introduction to the construction, operation and utilization of direct current and alternating current machines. Familiarization with the various types of machine control devices. Prerequisite: ELC 1112.

ELC 1122 Electrical Maintenance 3 6 5

A study is made of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing and connecting the various types of services for lighting, heating and power installations. Training is provided in trouble-shooting in the identification and testing of circuits, in making mechanical adjustments and related maintenance operations. Schematic diagrams are used showing the plan of operation for each system. Prerequisite: ELC 1113, ELC 1121.

ELC 1124 Residential Wiring 5 9 8

Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as: services, switchborads, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups. Prerequisite: ELC 1113, DFT 1110.

ELC 1124-E Residential Wiring (Part time) 2 6 4

ELC 1125 Commercial and Industrial Wiring 2 9 5

Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisites: ELN 1118, ELC 1124.

ELC 1125-E Commercial and Industrial Wiring (Part time) 2 6 4

ELECTRONICS

T-ELN 201 Industrial Controls 3 2 4

Industrial controls is the study of modern methods of controlling machinery

	Hours Per Week Class	Lab	Quarter Hours Credit

by electronic circuitry. Machinery controls and electronic that automatically operate machines will be studied. Types of motors, generators, control signals and devices, thyratrons, gates, switches, and servomechanism circuits are major areas of study. Prerequisite: T-PHY 103.

ELN 1118 Industrial Electronics Fundamentals 4 8 7

Basic theory, operating characteristics, and application of vacuum tubes such as: diodes, triodes, tetrodes, pentodes, and gaseous control tubes. An introduction to amplifiers using triodes, power supplies using diodes, solid state theory, and other basic applications. Prerequisite: ELC 1113.

ELN 1118E Industrial Electronics (Part time) 2 6 4

ELN 1119 Industrial Electronics Controls 4 11 8

Basic industrial electonic systems such as: motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, solid state devices, and other basic types and systems commonly found in most industries. Prerequisite: ELN 1118.

ENGINEERING GRAPHICS

EGR 101 Engineering Graphics I 2 4 3

The field of drafting is introducted as the student begins study of the lettering, geometrical construction, projections, sections, auxiliary projection, revolution, pictorial drawing, intersection and development. The drawing of fasteners, springs, and gears, detail and assembly drawings, and tracing and reproduction methods are studied. Prerequisite: None.

EGR 102 Engineering Graphics II 2 4 3

Descriptive geometry is introduced as the student studies representation of common geometrical magnitudes with points, lines, planes, and solids, concurrent noncoplanar forces, the solution of problems, advanced intersection and development. Prerequisite: EGR 101.

	Hours Per Week Class	Lab	Quarter Hours Credit

ENGLISH

ENG 091 Grammar and Composition 2 2 3

Emphasis on basic English skills, such as sentence structure, mechanics, paragraph development, and other language skills, such as vocabulary and reading skills, necessary for the student's achievement of his educational goals.

ENG 100 Reading Improvement 2 0 2

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and work group recognition and to train for comprehension in larger units. Prerequisite: None.

ENG 101 English Composition 3 0 3

The study of the use of the English language through the mediums of grammar, written composition, and literature. Prerequisite: Satisfactory score on S.A.T. or S.C.A.T.

T-ENG 101 Grammar 3 0 3

Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life. Prerequisite: None.

ENG 102 English Composition 3 0 3

A continuation of ENG 101. The study of the English language through the medium of the reading and written analysis of works of literature. Prerequisite: ENG 101.

T-ENG 102 Composition 3 0 3

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition. Prerequisite: T-ENG 101.

ENG 103 English Composition 3 0 3

A continuation of ENG 101 and ENG 102. The study of the English language through the medium of literature. The course includes the continuation of reading in literature drawing from all literary forms. Prerequisite: ENG 102.

T-ENG 103 Report Writing 3 0 3

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum. Prerequisite: T-ENG 102.

ENG 201 English Literature 3 0 3

A survey of English literature from the Anglo-Saxon Invasion to the Restoration period, 449-1660. Prerequisite: ENG 103 or consent of advisor.

ENG 202 English Literature 3 0 3

A continuation of English 201 beginning with the Restoration period, 1660, to the Accession of Victoria, 1837. Prerequisite: ENG 103 or consent of advisor.

ENG 203 English Literature 3 0 3

A continuation of English 201 and 202 beginning with the Accession of Victoria, 1837, to the twentieth century. Prerequisite: ENG 103 or consent of advisor.

ENG 204 American Literature 3 0 3

The study of American literature from the Puritan Age to the Romantic Movement. Prerequisite: ENG 103 or consent of advisor.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
T-ENG 204 Oral Communication	3	0	3

A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emhpasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention given to conduct meetings, conferences, and interviews. Prerequisite: None.

ENG 205 American Literature 3 0 3

A continuation of 204 beginning with the Romantic Movement and extending through the Rise of Realism with major emphasis on Twain, James, Poe, Emerson, Thoreau, Hawthorne, Whitman, and Melville. Prerequisite: ENG 103 or consent of advisor.

ENG 206 American Literature 3 0 3

A continuation of 204 and 205 beginning with the Realistic Movement and extending into the twentieth century with major emphasis on Steinbeck, Hemingway, Faulkner, Drieser, Sandburg, Frost, Lewis, Anderson, and Porter. Prerequisite: ENG 103 or consent of advisor.

T-ENG 206 Business Communication 3 0 3

Develop skills in techniques in writing business communications. Emphasis is placed on writing action—getting sales letters and prospectuses. Business reports, summaries of business conferences, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances, and inquiry. Prerequisite: BUS 102.

ENG 207 Creative Writing 3 0 3

A foundation course in writing of essays, short stories, and poetry. Student work is read and discussed in class. Reading and discussion of contemporary writers and critics. Prerequisite: ENG 103 or consent of advisor.

ENG 1101 Reading Improvement 2 0 2

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition to increase eye coordination and work group recognition and to train for comprehension in larger units. Prerequisite: None.

ENG 1102 Communication Skills 3 0 3

Designed to promote effective communication through correct language usage in speaking and writing. Prerequisite: None.

ENG 1103 Report Writing 3 0 3

Fundamentals of correct language usage applied to report writing. Emphasis is placed on principles of report construction and application to various report forms. Prerequisite: ENG 1102.

FURNITURE

T-FUR 102 Construction and Billing I 1 3 2

Emphasis on proper construction of case goods and frame stock. Study of basic construction theory. Identification of furniture construction terms. Interpretation and reading of furniture working drawing. Information on blueprint lines, dimensioning, procedure and notes. Basic knowledge of materials. Prerequisite: None.

T-FUR 103 Construction and Billing II 1 3 2

Continuation of T-FUR 103 C.B.I. with emphasis on making an accurate bill of material of each basic piece of furniture from factory drawings and specifications. Effect of construction on material, machine, and routing will be discussed. Prerequisite: T-FUR 102 or Approval of Advisor.

	Hours Per Week Class	Lab	Quarter Hours Credit
T-FUR 104 Characteristics of Wood	2	0	2

Ths study of basic structure of woods used by the furniture industry. Emphasis will be placed on the characteristics that mostly effect these woods in manufacturing—moisture, kiln drying, machine ability, glueing, handling. Attention will be given to veneers, particle board, and hardboard. Field trips to production plants. Prerequisite: None.

T-FUR 105 Glues 1 0 1

A study of adhesives currently used by furniture industry. Investigates the types of glues with study of operating characteristics— time factors, temperature, humidity, pressure, gap filling, grain orientation. Equipment used in application, handling and processing will be given attention. Prerequisite: None.

T-FUR 106 Abrasive Materials Method 2 2 3

Emphasis is on types of abrasive material and their uses, factors affecting different procedures and processes, causes and cures of defects in sanding. Study of equipment. Prerequisite: None.

T-FUR 107 Finishing Methods & Material 2 2 3

Study of the finishing methods and materials now used by the furniture industry—process of color, filling of pores, sealing, glazing, body coats, rubbing. Emphasis of various methods of drying. Advantages and disadvantages of material handling equipment—spray guns, conveyors, rubbing.

T-FUR 108 Production Equipment I 4 0 4

This course deals with operating procedure, capacities and safety of woodworking equipment used in the rough machine. Laminating and finish machine areas. Study will include cutting tools and operational responsibilities. Field trip to production plants. Prerequisite: None.

T-FUR 109 Production Equipment II 4 0 4

Continuation of T-FUR 108 deals with pre-assembly sanding and cabinet assembly equipment. Special equipment for chair manufacturing, carving, multipurpose equipment. Attention to material handling and department layout will be included. Field trips to production plants. Prerequisite: T-FUR 108.

T-FUR 112 Routing, Scheduling & Process 2 2 3

A comprehensive study of materials and methods of furniture manufacturing. The flow of material through various departments and equipment as now used by industry. Study of main and alternate processes and their relation to cost, labor, waste and time. Use of charts. Study of material properties and their relation to work cycle. Prerequisite: T-FUR 104, T-FUR 102, T-FUR 108 or approval of advisor.

GEOGRAPHY

GEO 201 Physical Geography 3 2 4

A course in physical science that emphasizes world land and water formations, weather, soils, vegetation, map reading and the relation of human activity to the physical environment. Lab periods will provide practical experience in dealing with above concepts. Prerequisite: None.

GEO 202 Regional Geography 5 0 5

A survey of the major world regions with emphasis on the techniques of thinking geographically about world problems. Prerequisite: GEO 201 or approval of instructor.

GEO 203 Economic Geography 3 0 3

A study of the geographical factors in production, distribution, and consumption of the major products of the world. Prerequisite: None.

Hours Per Week — Class Lab — Quarter Hours Credit

GUIDANCE

GUI 101 Introduction to Education 1 0 1

This course is designed to acquaint the student with his school and to review with him certain appropriate study techniques. Prerequisite: None.

HISTORY

HIS 101 Western Civilization 3 0 3

A general survey of the ancient near East; the classical civilizations of Greece and Rome; the new religious civilizations of the Middle Ages: Prerequisite: None.

HIS 102 Western Civilization 3 0 3

A survey of the Ages of the Renaissance and the Reformation; exploration, colonization, and the Commercial Revolution; the Age of Absolutism; the Age of Democratic Revolutions; and the Napoleonic Era. Prerequisite: None.

HIS 103 Western Civilization 3 0 3

A survey of the Industrial Revolution; the European political revolts of 1830 and 1848; the political unification of Germany and Italy; World War I and its aftermath; the rise of European totalitarian states; the upsurge of nationalism in Africa and the Orient; World War II: and the Cold War and Communist Free World Competitive Coexistence. Prerequisite: None.

HIS 201 American History 3 0 3

The study of the origins and development of the United States through the War of 1812. Prerequisite: None.

HIS 202 American History 3 0 3

The study of the history of the United States from the War of 1812 through the Civil War and the Reconstruction period. Prerequisite: None.

HIS 203 American History 3 0 3

The study of the history of the United States from the Reconstruction period to the present. Prerequisite: None.

HUMANITIES

HUM 101 Personal and Cultural Appreciation I 4 0 4

A course designed to help students to greater appreciation and understanding of themselves and their culture as a result of systematic study of the great ideas of each period of western civilization and the influence on the artistic, dramatic, literary, and musical expressions of these periods. Prerequisite: None.

HUM 102 Personal and Cultural Appreciation II 4 0 4

A continuation of Humanities 101. Prerequisite: Humanities 101.

HUM 103 Humanities in Twentieth Century America 4 0 4

A critical study in considerable depth of modern literature, art, and philosophy and their relevance to American life in our rapidly changing technological and nuclear age. Prerequisite: None.

INDEPENDENT STUDY

IST 199; T-IST 199; IST 1199 Independent Study 1 to 6 credit hours

This course provides opportunity for a student to develop a study project in any area in which professionally qualified instruction is available. Student develops project in a conference with advisor and instructor. Approval request

Hours Per Week Class Lab / Quarter Hours Credit

forms are then approved by appropriate directors and the Dean of Instruction. Credit earned generally meets elective requirements of a degree or diploma. Exact amount depends on duration and depth of project, but no more than six credit hours.

IST 299; T-IST 299 Independent Supply 1 to 6 credit hours

This course provides opportunity for the second year student to develop a study project in any area in which professionally qualified instruction is available. Student develops project in a conference with advisor and instructor. Approval request forms are then approved by appropriate directors and Dean of Instruction. Credit earned generally meets elective requirements of a degree. Exact amount depends on duration and depth of project but no more than six credit hours.

INDUSTRIAL SCIENCE

T-ISC 102 Industrial Safety 3 0 3

Problems of accidents and fire in industry. Management and supervisory responsibility for fire and accident prevention. Additional topics include accident reports, good housekeeping, protective equipment, accident code and fire regulations, safety instruction, use of safety committee, insurance bureau and how to promote safety programs. Prerequisite: None.

T-ISC 103 Production Control 1 3 2

Day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching and expediting. Case histories are discussed with corrective action developed. Prerequisite: MAT 110 or consent of advisor.

T-ISC 201 Industrial Organization and Management 3 0 3

Organizational structure for industrial management; operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting and markets, selection and layout of physical facilities; selection, training and supervision of personnel as found in typical industrial organizations. Prerequisite: None.

T-ISC 202 Quality Control 3 0 3

Principles and techniques of quality control and cost saving. Organization and procedure for efficient quality control. Functions, responsibilities, structure, costs, reports, records, personnel and vendor-customer relationships in quality control. Sampling inspections, process control and tests for significance. Prerequisite: None.

T-ISC 203 Motion Study 2 2 3

Types of methods studies and their applications. Process charts, analysis sheets, time study, work simplification, skill and effort rating. Prerequisite: None.

T-ISC 204 Value Analysis 3 0 3

The modern concept in the control of manufacturing production. This course will provide the students an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary cost by the use of sound decisions through a common sense approach. Prerequisite: None.

T-ISC 207 Formanship Supervision 3 0 3

The foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. It teaches the supervisor the basic

	Hours Per Week Class	Lab	Quarter Hours Credit

functions of an organization and his responsibility in carrying out the objectives in accordance with the organization's plan. Included in the course are such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies, and procedures, and rules and regulations. Prerequisite: T-BUS 272, or consent of advisor.

T-ISC 209 Plant Layout 3 2 4

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Layouts for small and medium-sized plants, layout fundamentals, selection of production equipment and materials handling equipment. Effective management of men, money and materials in a manufacturing operation. Prerequisite: T-DFT 102.

T-ISC 214 Product Development 3 0 3

This course of study is to familiarize the student with product development as it relates to the complete manufacturing organization. The evolution from original idea to retailer involving sales, design and engineering, cost, plant production, shipping, and outside agencies. Prerequisite: None.

ISC 1101 Industrial Safety 3 0 3

A study of the development of Industrial Safety; accident occurrence and prevention; analysis of accident causes and costs; basic factors of accident control; safety education and training; accident reporting and records; employer and employee responsibility; safety organizations; first aid; mechanical safeguards; personal protective equipment use; materials handling; fire prevention and protection; safety codes; and accident statistics. Prerequisite: None.

ISC 1103 Production Control 1 3 2

Production planning, dispatching, prograss reporting, adjusting and replanning systems and charts which help effectively control production will be developed and studied. Material wastes controls, labor controls, indirect labor controls, and overhead controls as they relate to production control will be dealt with. Prerequisite: None.

ISC 1110 Time Study & Time Standards 2 2 3

Primary emphasis on use of stop watch. Breaking down repetitive operation into elements. Timing the elements. Wilk readings. Operator performance rating. Avoidable delays. Allowances for unavoidable delays. Setting time standards. Timing delays. Technique of work sampling. Bench marks for "normal work pace." Motion study such as is needed to intelligently use predetermined time standards. Practice in building up standard times for specific operations using tables of predetermined times for the elements of the operation.

ISC 1113 Quality Control 3 0 3

Setting quality standards for customer acceptance. Final inspection to police these standards. Priot inspections and specifications to achieve final quality standard at minimum cost. Dimensions, tolerances, gages and other techniques to cnntrol dimensions. Qualities other than dimensions are more intangible. How to set standards and police performance in such areas. Receiving inspection, in process inspection, sampling. Prerequisite: None.

ISC 1121 Cost Records and Cost Estimates 3 0 3

Estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and shortage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: Consent of instructor.

	Hours Per Week Class	Lab	Quarter Hours Credit

ISC 1123 Work Measurement 3 2 4

The basic study of the principles of work simplification, motion study fundamentals, and time study techniques. The use of predetermined time—schedules and the use of the stop watch as they apply to ask performance of the operator in his work performance. The study of flow diagrams and methods evaluation for production purposes. Prerequisite: Consent of instructor.

ISC 1125 Supervisory Responsibility 3 0 3

This course deals with such topics as fundamentals of supervision, relationships on the job, human relations, performance and job evaluation, the art of motivating people, and effective communications. Prerequisite: None.

LIBRARY MEDIA TECHNICAL ASSISTANT

T-EDM 101 Introduction to Libraries and Information Centers 3 0 3

General background and philosophy of information service, including a brief history of libraries and information centers and their recent developments. Introduction to classification systems and organization of materials, functions and use of information centers, and terminology. A study of the duties and qualifications of the personnel who staff these centers. Prerequisite: None.

T-EDM 102 Library Processes I 3 0 3

Policies and practices of acquisition of various kinds of materials, information relative to their sources, and the techniques of ordering. Includes borrowing films and film rentals, interlibrary loan materials, micorilm, etc. Prerequisite: None.

T-EDM 103 Library-Media Resources 3 0 3

Study of general and special reference works, catalogs, and other basic sources of information. This course also includes practice in preparation of bibliographies, emphasizing correct form, of all kinds of media. Prerequisite: None.

T-EDM 201 Library Processes II 3 2 4

Routine aspects of simple cataloging. Includes study of the organization of media collections, bibliographic searching for cataloging information, practice in descriptive cataloging, production and filing of catalog cards, and physical preparation of materials for use. Prerequisite: BUS 102.

T-EDM 202 Library-Media Procedures 3 2 4

Study of the principles of various circulation systems and their attendant procedures. Supervised performance of routines that are common to information centers, such as scheduling, record keeping, inventory, shelving, filing, processing and mending materials, and handling equipment. Prerequisite: None.

T-EDM 203 Practicum 2 6 4

Students will be placed in an approved location for six hours per week of supervised learning experiences under a professional librarian or media specialist, putting into practice the various skills learned. In addition, two hours a week will be spent in group discussions of work-oriented problems and personal development. Prerequisite: T-EDM 101, 102, 103, 201, EDM 104.

T-EDM 204 Practicum 2 6 4

Continuation of supervised practice. Six hours per week of practice work in an approved location. In addition, two hours a week will be spent in group discussions of work-oriented problems and personal development. Prerequisite: T-EDM 203.

Quarter
Hours Per Week Hours
Class Lab Credit

MACHINE SHOP

T-MEC 101 Machine Processes 1 5 3

An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes of our modern industry. It will include a study of measuring instruments, characteristics of metals and cutting tools. The student will become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

T-MEC 102 Machine Processes 1 5 3

Advanced operations on lathe, drilling, boring and reaming machines. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed. Prerequisite: T-MEC 101.

T-MEC 103 Machine Processes 1 5 3

Modern machine tools of industry. Theory and practice with shaper, slotter, planer, turret lathe, screw machine, grinding and finishing machines. Gear design and the processes of gear manufacturing. Prerequisite: T-MEC 102.

T-MEC 201 Machine Processes 1 6 3

Newer concepts of work handling and automatic machining process. Chipless production and new techniques in metal forming. Analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling, numerical controls and simplified building block numerical control systems. Prerequisite: T-MEC 103.

T-MEC 205 Strength of Materials 3 2 4

Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns and machine components. Prerequisites: T-PHY 106, T-MAT 103.

T-MEC 207 Tool Making 3 3 4

This course will survey the actual construction of molds with topics of interest being tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold colling, ejector pins, multi-cavity molds. Selection of materials, use of inserts. Two color moldings. Mold building and use. Pre-Prerequisite: T-PLA 107.

T-MEC 210 Physical Metallurgy 3 3 4

Introductory course in metallurgy, a basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. Prerequisites: PHY 101.

T-MEC 211 Physical Metallurgy 3 3 4

Properties of metals and alloys, the reactions of metals, diffusion, carburizing, metal bonding and homogenization, recrystallization and grain growth, age, hardening, nitriding, internal oxidation, heat treatment of steel, laboratory experiments and demonstrations. Prerequisite: T-MEC 210.

T-MEC 212 Practical Automation 3 2 4

A comprehensive study of automation as it is interpreted and practiced by American industry of today. The fundamentals of automation and its effects in industrial productivity, labor supply and demand, equipment and

Hours Per Week — Class Lab — Quarter Hours Credit

processes. Students will solve problems encountered while installing an automated system. Prerequisite: None.

T-MEC 213 Production Planning 3 3 4

Day-to-day plant direction; forcasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed in the classroom, and courses of corrective action are developed. drafting room layouts for planning and control. Prerequisite: T-DFT 102. Corequisite: T-MEC 201.

T-MEC 214 Tool Engineering 3 0 3

An introduction to the problems of tool engineering with emphasis on planning the processes of production, designing and developing the necessary tools, and utilizing available manufacturing facilities; practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds, and gauges as they are utilized in our modern day manufacturing and production methods. Prerequisites: T-DFT 102, T-MEC 201.

T-MEC 217 Engineering Materials & Processing & Testing 3 3 4

An introductory study of the common materials used in engineering, such as woods, metals, concrete, plastics, etc., and the related physical testing to determine their properties and strengths. Emphasis is placed upon problem solving and engineering application. Prerequisite: T-PLA 106 or permission of advisor.

T-MEC 235 Hydraulics and Pneumatics 3 3 4

The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs. Prerequisite: PHY 102.

T-MEC 237 Control Systems 3 3 4

Hydraulic, pneumatic, mechanical, electrical and electronic control systems and components. Basic description, analysis and explanation of operation. Typical performance characteristics, limitations on performance, accuracy, applications and their utilization in industrial processes. Prerequisites: PHY 102, T-ELC 201.

T-MEC 298 Mechanical Problems Solving 2 3 3

A basic study related to Special Problems encountered in the Mechanical Area. Mechanical advantages, motors and controls as well as types of movements will be investigated. General mechanical operations and maintenance as well as production line problems will be surveyed. Prerequisite: T-MEC 102 or permission of instructor.

MEC 1101 Machine Shop Theory and Practice 2 12 8

An introduction to the machinist trade and the potential it holds for craftsman. Deals primarily with the identification, care and use of basic hand tools and precision measuring instruments. elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice. Prerequisite: None.

MEC 1101-1 (Part time) 2 6 4

MEC 1101-2 (Part time) 2 6 4

MEC 1102 Machine Shop Theory and Practice 3 15 8

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine shaper. The student will be introduced to the basic operations on the cylindrical grinder and will select projects

	Hours Per Week Class	Lab	Quarter Hours Credit

encompassing all the operations, tools and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1101.

MEC 1102-1 (Part time) 2 6 4

MEC 1102-2 (Part time) 2 6 4

MEC 1103 Machine Shop Theory and Practice 3 15 8

Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder. Prerequisites: MEC 1102.

MEC 1103-1 (Part time) 2 6 4

MEC 1103-2 (Part time) 2 6 4

MEC 1104 Machine Shop Theory and Practice 3 12 7

Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry. Prerequisite: MEC 1103.

MEC 1104-1 (Part time) 2 6 4

MEC 1104-2 (Part time) 1 7 3

MEC 1112 Machine Shop Processes 0 6 2

To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the basic fundamentals of drill press and lathe operation; hand grinding of drill bits and lathe tools; set-up work applied to the trade. Prerequisite: None.

MEC 1113 Shop Processes 2 3 3

Study of practices used in metalworking shops: introduction to how materials can be utilized, and to the processes of shaping, forming, and fabricating of metals. Demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines and finishing machines. A study of the capabilities of these machines. Prerequisite: None.

MEC 1114 Shop Processes 2 3 3

Comparison of the unit-production and mass-production systems. Casting, forging and allied processes, welding and sheet metal working processes are demonstrated and discussed. Mass-Production methods are studied in relationship to precision dimensional control. Prerequisite: MEC 1113.

MEC 1115 Treatment of Ferrous Metals 2 3 3

Investigates the properties of ferrous metals and tests to determine their uses. Instructions will include some chemical metallurgy to provide a background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cost iron will be topic for study. Prerequisite: None.

	Hours Per Week Class	Lab	Quarter Hours Credit
MEC 1116 Treatment of Nonferrous Metals	2	3	3

Investigates the properties of non-ferrous metals and tests to determine their uses. Primary interest will be on aluminum, magnesium, zinc, lead and chromium. Non-ferrous alloys such as brass, bronze, bobbit and cemented carbides will be studied. A discussion of stailness steel will be included. Prerequisite: MEC 1115.

MEC 1117 Structure of Metals	3	2	4

A study of stresses which occur within machines subjected to various loads are made. Analysis of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns and machine components. Prerequisite: PHY 1102 or Approval of Department.

MEC 1118 Advanced Machine Processes	3	12	7

An advanced study of the operations of the machine shop, utilizing all machines. The student will receive instructions on gauging practices and its applications to the finished product, and will become familiar with various gaugins procedures. Students will be assigned individual projects by which he will gain proficiency on the various types of machines. Prerequisite: MEC 1104.

MEC 1119 Advanced Machine Processes	3	9	6

This course will offer a study of the more complex machines within the shop. Step-by-step study of tooling for the automatic screw machines, turret lathe, and numerical tape-controlled machine will be explored. Automatic chucking and clamping systems will be emphasized. Prerequisite: MEC 1118.

MEC 1120 Machine Repair	1	3	2

This course will offer the student a look into the machines themselves. Possible reasons for machine break-down will be explored. Emphasis is placed on the proper maintenance of machinery as well as preventative maintenance. Repair and maintenance manuals for various machines will be reviewed. Prerequisite: MEC 1104.

MEC 1121 Machine Repair	1	3	2

A continuing study of the inner parts of machinery. Special interest will be placed on commercial standards, designs, and development of necessary tools and accessories. A comparison of purchase price on manufactured items of replacement parts will be studied. Prerequisite: MEC 1120.

MEC 1122 Production Procedures	4	3	5

A study of product planning and control, scheduling, and routing of operations will be surveyed. Principles and techniques of quality control and cost saving, sampling inspections, graphs and charts are emphasized. Both statistical and deminsional quality control is reviewed as well as a study of the different processes to produce an item. Prerequisite: MEC 1104.

MEC 1123 Shop Processes	2	3	3

Continuation in the study of methods of manufacturing parts. Metal machining will be the main emphasis in this course. Further operations on metal cutting saws, lathes, milling machines, grinders and introduction to gear cutting equipment will be reviewed. How dimentional control and precision measurement coincides with drafting procedures are an important section of this study. Prerequisite: MEC 1114.

MEC 1124 Shop Processes	2	3	3

Some of the newer concepts of work handling and automatic machining processes is discussed. Intructions are offered on automatic screw machines, turret lathes, numerical controlled systems as well as chipless machining.

	Hours Per Week Class	Lab	Quarter Hours Credit

Major emphasis is on the integration of drafting processes to the machined part and how each effects the other. Prerequisite: MEC 1123.

MEC 1139 Basic Hydraulics and Pneumatics	3	3	4

The basic theories and uses of hydraulic and pneumatic systems, and also, the combination of systems. Basic designs and functions of circuits and motors, controls, electro-hydraulic servo-mechanisms, filtration, accumulators and reservoirs. Installation and maintenance of the components will be made by the students. Prerequisite: PHY 1101.

MEC 1147 Systems of Measurement and Measuring Tools	2	0	2

A basic study of measurement and the various systems. How to use and read the various rules, scales, calipers, micrometers and other precision measuring tools used in mechanical work. Included is the reading of the basic electrical meters used in testing. Prerequisite: None.

MEC 1298 Special Problems in Mechanics (Maximum Credit 6 hrs)

The prupose of this course is to broaden the students' experiences in the areas of mechanics. Problems involving experimentation, investigation and writing of a research report involving automobiles, mechanical operations and general maintenance and repair required for machinery may be basis for investigation. Prerequisite: All curriculum courses.

Hours Per Week Class | Lab | Quarter Hours Credit

MATHEMATICS

MAT 090 Developmental Mathematics 2 3 3

Emphasis on basic mathematical skills, such as fractions, decimals, percentages, ratio and proportion, square roots, and others required for successful performance in algebra.

MAT 091 Introductory Algebra 2 3 3

Emphasis on basic algebraic skills, such as sets, counting numbers, integers, rational numbers, equations involving two variables, polynomials, and quadratic equations.

MAT 101 College Mathematics 5 0 5

An introduction to college mathematics including the study of sets, number systems, elementary logic, and algebraic processes.

T-MAT 101 Technical Math 5 0 5

The real number system is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed. Prerequisite: Satisfactory score on S.C.A.T.

MAT 102 College Mathematics 5 0 5

Further study in college mathematics including algebraic fractions, factoring, exponnets, logarithms, and the solution of equations and inequalities. Prerequisite: MAT 101.

T-MAT 102 Technical Math 5 0 5

A continuation of T-MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the bi-normal expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studied in depth. Prerequisite: T-MAT 101.

MAT 103 College Mathematics 5 0 5

A continuation of MAT 102 including the study of trig. functions of acute and general angles, right and oblique triangles, fundamental identities, and the trigonometric equations. Prerequisite: MAT 102.

T-MAT 103 Technical Mathematics 5 0 5

The fundamental concepts of analytical geometry, differential and integral calculus are introduced. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, and integral and basic integration techniques. Applications of these concepts to practical situations are stressed. Prerequisite: T-MAT 102.

T-MAT 105 Radiological Mathematics 3 0 3

A course to include basic concepts and operations of algebra; addition, subtraction, multiplication and division; graphical representation; logarithms; geometry and trigonometry. A study of the mechanics involved in the use of a slide rule will be introduced. Prerequisite: None.

MAT 110 Business Math 5 0 5

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price, marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: Satisfactory score on S.C.A.T.

MAT 111 Algebra 5 0 5

An axiomatic presentation of the real number system as an ordered field,

	Hours Per Week Class	Lab	Quarter Hours Credit

in which axioms, definitions, and theorems are used to justify traditional algebraic processes, involving such topics as algebraic fractions, factoring, exponents, logarithms, and the solution of equations and inequalities.

MAT 112 Trigonometry 5 0 5

A study of functions of acute and general angles, fundamental identities, logarithms, radian measure, trigonometric equations, addition formulas, oblique triangle, and complex numbers. Prerequisite: MAT 111.

MAT 113 Analytical Geometry and Calculus I 5 0 5

This course includes the study of the coordinate system, loci, linear and quadratic graphs, conics, limits, continuity and introduces differentiation. Prerequisite: MAT 112 or equivalent.

MAT 115 Slide Rule 2 0 2

A study of the mechanics involved in the use of the slide rule. Multiplication, division, trigonometric functions, powers and roots, common and natural logarithms are covered. Prerequisite: None.

MAT 201 Analytic Geometry and Calculus II 5 0 5

A continuation of differentiation and applications of the derivative. The topics of study are related rates, maximum and minimum values of a function, Rolle's theorem, the mean-value theorem and inflection. Also the indefinite integral and its properties are introduced. Prerequisite: MAT 113 or equivalent.

MAT 202 Analytic Geometry and Calculus III 5 0 5

A continuation of the study of the indefinite and definite integrals and their applications. Areas, volumes, moments, work, and fluid pressure are included. Also included are transcendentals functions, integration by parts, integration by substitutions and integration by partial fractions. Prerequisite: MAT 201 or equivalent.

MAT 203 Analytical Geometry and Calculus IV 5 0 5

Topics of study include multiple integration, approximate integration, improper integrals, indeterminate forms, infinite series and expansion of functions and vectors. Prerequisite: MAT 202 or equivalent.

MAT 214 Statistics 5 0 5

The theory of statistics and its application in modern business. Kinds of regularity that exist among random fluotuations. Experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: T-MAT 101.

MAT 220 Differential Equations 5 0 5

A study of the methods of solution of ordinary differential equations. Prerequisite: MAT 203.

MAT 1101 Fundamentals of Math 3 0 3

Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth. Prerequisite: None.

MAT 1101N Fundamentals of Math 3 0 3

The purpose of this course is to review the principles of basic math. The student is introduced to the metric, apothecary, and the household systems and also dosage of drugs by hypodermic tables. Prerequisite: None.

MAT 1102 Algebra 5 0 5

Basic concepts and operations of algebra: historical background of our

Hours Per Week Class	Lab	Quarter Hours Credit

base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, graphing, exponents, logarithms, tables and interpolation. Prerequisite: None.

MAT 1103 Geometry 3 0 3

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedral angles, areas of plane figures, volumes of solids. Geometric principles are applied to shop operations. Prerequisite: None.

MAT 1104 Trigonometry 3 0 3

Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems. Prerequisite: None.

MAT 1112 Building Trades Math 3 0 3

Practical problems dealing with weights, volumes, ratios, mensuration; and basic estimating practices for building materials. Prerequisite: None.

MAT 1115 Electrical Math 5 0 5

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, ratios, and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables; and introduction to trigonometric functions and their application to right angles; and a study of vectors for use in alternating current. Prerequisite: None.

MAT 1120 Applied Mathematics 3 0 3

Practical problems are especially selected to ensure mastery of mathematics principles applied to the automobile trades. Prerequisite: MAT 1101.

MAT 1123 Math: Machinist 3 0 3

Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems. Prerequisite: MAT 1104.

MUSIC

MUS 101 Music Appreciation 3 0 3

Designed to give a basic orientation to music with emphasis on simple form and analysis, instrumentation, althetics, masterpieces, and other significant work. Prerequisite: None.

MUS 102 Elementary Theory of Music I 3 0 3

A basic fundamentals course. An aural approach to conceptual areas of ear-training, sight-singing, and keyboard harmony with emphasis on note reading and notation, major scales with related and parallel minors, major and minor triads and dominant sevenths, key signatures, intervals, enharmonics, compositional devices, and rhythmic textures. Prerequisite: None.

MUS 103 Elementary Theory of Music II 3 0 3

A continuation of MUS 102. Further study includes figured bass, diminished

	Hours Per Week Class	Lab	Quarter Hours Credit

and augmented chords, chord inversions, four-part harmonic progressions, cadences, secondary dominants, transposition, modulation, improvisation, pentatonic and whole tone scales, mediaval modes, phrase structure, nonharmonic tones, pivot chords, sequences, chromatic chords, Neopolitan sixth and chords of the ninth, eleventh and thirteenth. Prerequisite: MUS 102.

	Class	Lab	Credit
MUS 110 Recreational Music	3	0	3

The purpose of this course is to develop an understanding of the value and use of music in a recreation program. The instruments, aids, and materials used will be given special attention. Practice sessions & demonstrations of teaching techniques and skills will be afforded the students. Prerequisite: None.

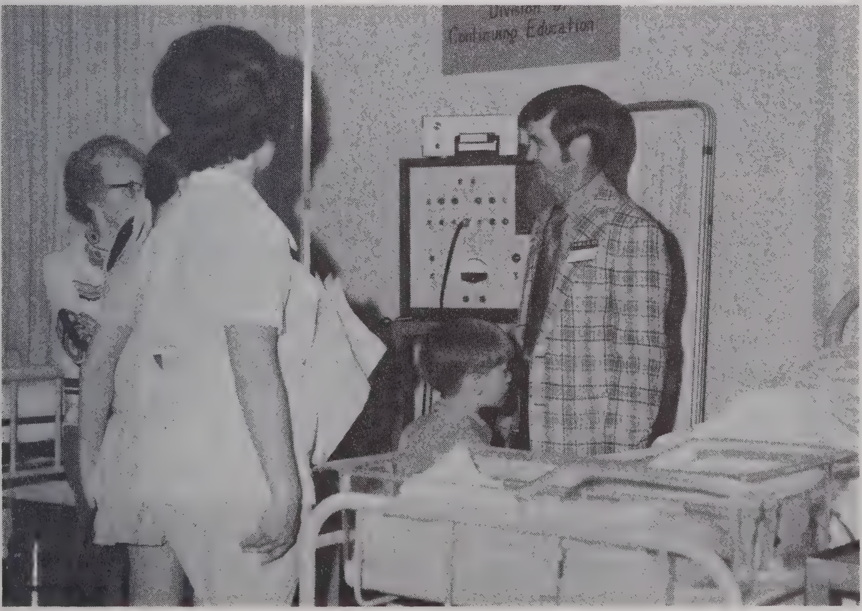
	Class	Lab	Credit
MUS 201 Dance	1	4	3

This skill course is designed to develop specific talents in the area of recreational dance. Activity sessions will stress the different types of dances, the skills involved, and the techniques used in teaching dancing to different age groups. Appropriate dances with adaptations for the different handicapped groups will also be stressed. Adequate class time will be used for student participation and practice. Prerequisite: None.

NURSING

	Class	Lab	Credit
NUR 1101 Basic Science	6	3	7

This course is designed to give the beginning student an understanding of basic science principles and their relationships to practical nursing. This course includes study of the structure and functions of the human body, principles of foods and nutrition and selected efforts of microbiology as related to nursing. Prerequisite: None.



Hours Per Week: Class, Lab — Quarter Hours Credit

NUR 1102 Introduction to Patient Care 9 3 10

This course is designed to provide the opportunity for students to gain a knowledge of principles which are basic to effective and safe nursing care. Emphasis is placed on the development of the essential skills for the performance of those nursing measures that are normally the responsibility of the Licensed Practical Nurse. Also included is the development of appreciations which will assist the student's understanding of her role as a member of the medical team, in establishing effective relationships with her co-worker and patients, and in establishing realistic personal and vocational goals. Prerequisite: None.

NUR 1103 Medical-Surgical Nursing I 4 0 4

This course is designed to provide the student with a basic understanding of causes of disease and the body's response, the signs and symptoms of illness and knowledge of diagnostic procedures. It provides the student an opportunity to learn to communicate with patients as well as provide the student a basic understanding of the nursing needs and therapeutic measures used in the general case of the hospitalized. It also provides the student with a basic knowledge of principles of care of the surgical patient, the aged and chronically ill patient and the critically ill patient. Lecture and classroom activities provide the background for selected clinical expereince. Prerequisites: NUR 1101, NUR 1102.

NUR 1104 Hospital Care of Patients 0 24 8

Due to the structure of the program, this course offers selected clinical experience in one or a combination of three specialities which include medical-surgical nursing care of the maternity patient and the newborn infant as well as nursing of infants and children. It provides these selected expereinces to increase the student's knowledge of the patient's condition and beginning skills in safe effective nursing in the areas mentioned previously. Prerequisite: NUR 1101, NUR 1102.

NUR 1105 Medical Surgical II 9 0 9

This course is designed to provide the student with a basic knowledge and understanding of the principles and nursing need of the patient with infectious diseases, cancer, respiratory, cardiovascular, gastrointestinal and endocrine system disorders.

It also provides opportunities to increase skills in communications. Lecture and classroom activities provide background for selected clinical experience. Prerequisite: NUR 1103, NUR 1104, NUR 1109, NUR 1110

NUR 1106 Hospital Care of Patients 0 24 8

A continuation of NUR 1104. Prerequisite: NUR 1103, NUR 1104, NUR 1109, NUR 1110.

NUR 1107 Medical-Surgical Nursing III 12 0 12

This course is designed to provide the student with basic knowledge and understanding of the principles and nursing needs of the patient with disorders of the nervous, muculo-skeletal, urinary and reproductive systems. Also included are disorders of the skin, eye, ears, nose and throat as well as disaster nursing. Emhpasis in also placed on the student's adjustment as a member of the nursing profession. Lecture and classroom activities provide background for selected clinical experience. Prerequisites: NUR 1105, NUR 1106, NUR 1109, NUR 1110, NUR 1111.

NUR 1108 Hospital Care of Patients 0 24 8

A continuation of NUR 1104 and NUR 1106. Prerequisite: NUR 1105, NUR 1106, NUR 1109, NUR 1110, NUR 1111.

	Hours Per Week Class	Lab	Quarter Hours Credit
NUR 1109 Maternal & Infant Care	4	0	4

This course is designed to provide opportunities for students to acquire the knowledge, understanding and skill needed for rendering safe and effective nursing care to the maternity patient and newborn infant. Classroom instruction provides the background essential for planned clinical experience centered around analysis of nursing needs and formulation of a nursing care plan to meet individual patient needs. Prerequisite: NUR 1101, NUR 1102.

NUR 1110 Care of Infants and Children 4 0 4

This course is designed to provide the student with principles of growth and development of infancy through adolsecence. It also offers opportunities to acquire knowledge, understanding and skills needed to render safe effective nursing care to the individual patient in the clinical setting. Prerequisite: NUR 1101, NUR 1102.

NUR 1111 Drug Administration 3 0 3

This course is designed to give the practical nurse student a basic knowledg of the more common drugs. Emphasis is placed on the dangers involved in drug use. The side effects, and the laws regulating their use. The proper methods to administering both oral and injectable drugs is stressed. Lecture and class activities provide the background for selected clinical experience in the administration of drugs. Prerequisite: NUR 1103, NUR 1104, MAT 1101-N, NUR 1109, NUR 1110

PHILOSOPHY

PHI 201 Introduction to Philosophy 3 0 3

An introduction to the subject matter and methods of philosophy to include the analysis of fundamental issues underlying deductive and inductive logic; theories of perception, mind, body, and value. Prerequisite: None.

PHYSICAL EDUCATION

(No Prerequisites)

PED 110 Archery 0 2 1

Designed to teach student the fundamentals, skills, history and rules with special emphasis on safety practices, etiquette, and value which carry over into a useful leisure time activity.

PED 111 Badminton 0 2 1

Deals with beginning skill in the basic strokes and a general knowledge of the history, rules, and strategy of the game.

PED 112 Bowling 0 2 1

The fundamentals of ball selection, grips, stance, and delivery are taught along with rules, history, and scoring. Special emphasis is placed on spot bowling. bowling.

PED 113 Golf 0 2 1

Designed for teaching the grips, stance, serving, and use of various clubs, along with history and etiquette of play.

PED 114 Physical Fitness 0 2 1

An introduction to physical activity with emphasis being placed on cardiovascular system, strength and efficiency in executing basic skills which may arise in play and daily living.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
PED 115 Tennis	0	2	1

An elementary course in the history, rules, and regulations. Emphasis will be placed on the fundamentals of the game with prime consideration given to strokes and footwork.

	Class	Lab	Credit
PED 116 Beginning Skiing	0	2	1

This course is for the non-skier. An elementary course designed to get the individual to the point that he can ski proficiently.

	Class	Lab	Credit
PED 117 Beginning Swimming	0	2	1

A course designed for the non-swimmer. Basic strokes and water safety based upon American Red Cross Programs of instruction.

	Class	Lab	Credit
PED 119 Tumbling and Gymnastics	0	2	1

This course deals with the beginning skills of tumbling, stunts, and gymnastics. Special emphasis will be placed on the safety of these activities and correct body balance and form.

	Class	Lab	Credit
PED 130 Basketball	0	2	1

A course designed to study the rules, strategy, and history as well as the fundamental skills of beginning basketball.

	Class	Lab	Credit
PED 132 Soccer	0	2	1

Designed to teach the fundamental skills, history, rules, and strategy with emphasis begin placed on practice and execution of activity skills.

	Class	Lab	Credit
PED 133 Softball	0	2	1

The study of history, rules, skills, and strategy with emphasis on defensive play by positions.

	Class	Lab	Credit
PED 134 Volleyball	0	2	1

A course designed to include the fundamental skills, history, rules, and strategy of the game, with special emphasis on carry-over value of activity.

	Class	Lab	Credit
PED 150 Track and Field	0	2	1

A coures designed to develop knowledge, skill and interest in track and field events.

	Class	Lab	Credit
PED 151 Modern Dance	0	2	1

A course designed to develop and improve fundamental skills in dance movements and techniques, and to encourage appreciation of dance as an art form and medium of education.

	Class	Lab	Credit
PED 152 Folk and Square Dance	0	2	1

A course in the development and successful performance of dance skills in regional American folk dances.

	Class	Lab	Credit
PED 160 Individual Activity	0	2	1

Specialized activities approved by the Physical Education and Recreation Department for a particular student.

	Class	Lab	Credit
PED 180 Personal & Community Health	3	0	3

This course is designed to develop an awareness of the personal, community, and world-wide importance of health. Special emphasis is placed on the physical mental and emotional espects of the human body. Health problems, their causes and prevention will also be stressed.

	Class	Lab	Credit
PED 215 Advanced Tennis	0	2	1

This course is designed to develop the skills learned in PED 115, with special emphasis on singles and doubles strategy, also tournament play within the class. Prerequisites: PED 115 or permission from instructor.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
PED 216 Advanced Skiing	0	2	1

This course is designed for advanced students in perfecting skills in the following areas: slalom, down-hill racing, turns, and jumps, with emphasis on control and safety. Prerequisite: PED 116 or approval of instructor.

PHYSICAL SCIENCE

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
PHS 101-102-103 Man and His Phsyical Environment	3	2	4

An integrated perspective of the physical sciences, study of selected topics such as systems of measurement, the expanding universe, structure of earth, kinetic molecular theory of matter, energy (types, transformations, utilization), properties of elements and compounds, structure and utilization of atoms. The role of science in the development of civilization. Prerequisite: None.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
T-PHS 105 Survey of Physical Science	3	0	3

An introductory course in science that will enable the student to continue in life as an informed layman. Facts of everyday experience are related to theories and models that are currently accepted as being the best representation of the nature of the physical world. Topics of study include weather, energy, motion, sound, light, electricity and magnetism. Prerequisite: None.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
T-PHS 106 Survey of Phsyical Science	3	0	3

A continuation of above. Prerequisite: T-PHS 105.

Hours Per Week Class	Lab	Quarter Hours Credit

PHYSICS

PHY 101 Physics: Properties of Matter 3 2 4

A fundamental course covering several basic principles of physics. The division's included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: None.

PHY 102 Physics: Work, Energy, Power 3 2 4

The major areas covered in this course are work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. Prerequisites: PHY 101, T-MAT 101.

PHY 103 Physics: Electricity 3 2 4

Basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major parts of the course. Prerequisites: PHY 102, T-MAT 102.

T-PHY 106 Applied Mechanics 5 0 5

Concepts and principles of statics and dynamics. Parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion. Corequisites: T-MAT 103, T-PHY 102.

PHY 107 Physics 3 2 4

Emphasis is placed on the fundamentals of electrical and radiation physics and the basic principles underlying the operation of x-ray equipment and auxiliary devices. Prerequisite: MAT 101, MAT 111, or T-MAT 105.

PHY 108 Physics 3 2 4

Emphasis is placed on the fundamentals of electrical and radiation physics and basic principles underlying the operation of x-ray equipment and auxiliary devices. Prerequisite: PHY 107.

PHY 211 General Physics I 3 2 4

A study of classical and modern physics in which the analytic approach is employed and calculus is used as needed. Mechanics, sound, and heat are included.

PHY 212 General Physics II 3 2 4

A continuation of PHY 201 including magnetism and electricity. Prerequisite: PHY 201.

PHY 213 General Physics III 3 2 4

A continuation of PHY 203 including light, optics, and modern Physics. Prerequisite: PHY 202.

PHY 1101 Applied Science 2 4 4

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles. Prerequisite: MAT 1101.

PHY 1102 Applied Science 2 4 4

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry, and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101.

	Hours Per Week Class	Lab	Quarter Hours Credit

PLASTICS

	Class	Lab	Credit
T-PLA 101 Introduction to Plastics	2	3	3

This course provides the student with an overview of the plastics industry. It includes the opportunities to learn the properties of plastics, the range of user application, the jobs done by people in the fabrication of plastics, and the commercial production processes. Some laboratory experience is provided to give a basic understanding of how plastics are fabricated. Prerequisite: None.

	Class	Lab	Credit
T-PLA 105 Plastic Forming I	2	6	4

This course provides experience in thermoforming, injection molding and compression molding of plastics as is done commercially. The student is taught how the industrial processes work. Actual experience on industrial equipment is provided in the laboratory. Safety is stressed in this course. Prerequisite: T-PLA 101 or approval of advisor.

	Class	Lab	Credit
T-PLA 107 Plastic Forming II	6	6	8

Injection molding machines and molding techniques as well as safety will be explored. Material preparation and feeding, cycling, ejection and secondary processes will be discussed, as well as machine capacity, and color blending. Extruder construction and operation to include the flow of plastics in extrusion, screw design and performance will be viewed. Design of extrusion dies, instrumentation and auxillary equipment will be discussed in the second phase.

Blow molding will focus on the "why" and "how" of blow molding and thermoforming. Current practice as regards to methods, machine design and mold design is reviewed. Pour casting will be introduced. The use of latex and rubber molds will be viewed for their advantages and speed of production in manufecturing today. Emphasis of this course will be on the effect of processing variables on the finished part, quality and cost. Prerequisite: T-PLA 105 or approval of advisor.

	Class	Lab	Credit
T-PLA 117 Plastic Forming III	3	6	5

This course is a continuation of T-PLA 107. How the commercial processes of extrusion, blow molding, casting, laminating, calendering and expansion of formable bead work is taught. Experience with all of these processes except calendering is provided in the laboratory. Emphasis on good housekeeping will be stressed. Prerequisite: T-PLA 107 or approval of advisor.

	Class	Lab	Credit
T-PLA 118 Fabricating, Lamination, Finishing	3	0	3

Advantages and techniques of selected methods of fabricating and laminating plastics, including layup, sprayup, preforming, filling and filament winding. Material selection, production techniques and selected applications will be discussed. Plastic finishing will be introduced. The uses of paints and coatings will be discussed as well as machine finishing of the final parts. Prerequisite: None.

	Class	Lab	Credit
T-PLA 135 Physical Properties of Plastics	2	3	3

The physical properties of plastics such as tensile strength, modulus of elasticity and impact resistence are measured in a testing laboratory. The effect of temperatures, exposure to light and chemicals on the physical properties is explored. Tests will also compare physical and chemical properties of plastics with other materials. Work safety is a part of this course. Prerequisite: T-PLA 106.

	Class	Lab	Credit
T-PLA 218 Plastic Material & Applications	3	3	4

Classes of materials, their physical and chemical properties. Effects on materials of environmental factors. Product areas of applications: Appliances, Pharmaceutical Medical; Packaging, Automotive, Aviation, and Marine, Toys and Housewares, Textiles; Industrials, and Construction.Prerequisite:T-PLA 215.

	Hours Per Week Class	Lab	Quarter Hours Credit
T-PLA 219 Plastic Mold Design I	1	3	2

Metals, finishes, cavity-forming methods, mold bases, temperature control, mold layout, and runner and gate systems are subjects of discussion. Relationships with molding and molding finishing, and end-use requirements are stressed. Corequisite: T-MEC 210.

	Class	Lab	Credit
T-PLA 220 Mold Design II	2	6	4

This course is planned to give the student exposure to good and poor practices in making molds for injection molding, blow molding, thermoforming, extrusion and compression molding. It provides knowledge of materials used to make molds and some laboratory expereince in making molds with plastic resins. Prerequisite: T-PLA 219.

	Class	Lab	Credit
T-PLA 225 Practicum	0	6	2

This course consists of supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. This period of time will enable the student to perform a planned variety of activities required of his specialty. The work periods will be carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the education institution, the student, and the employer will identify the sequence of activities to be performed by the student and define the supervisory responsibilities for the educational element of work. Prerequisite: Student registered in a technical program in the institution.

	Class	Lab	Credit
T-PLA 226 Practicum	0	9	3
T-PLA 227 Practicum	0	9	3

This course consists of supervised work experience alternating with the educational program on a schedule satiafactory to employers, the institution, and the student. This period of time will enable the student to perform a planned variety of activities required of his specialty. The work periods will be carefully planned and closely supervised by the employer and in the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the education institution, the student, and the employer will identify the sequence of activities to be performed by the student and define the supervisory responsibilities for the educational element of the work. Prerequisite: Student registered in a technical program in the institution.

POLITICAL SCIENCE

	Class	Lab	Credit
POL 101 The American Constitution	2	0	2

A study of the origins and development of the U. S. Constitution with emphasis on the nature of federalism, division of powers, and the Bill of Rights. Prerequisite: None.

	Class	Lab	Credit
POL 201 American Federal Government	3	0	3

A study of the structure and function of the national government with emphasis on current political affairs. Prerequisite: None.

	Class	Lab	Credit
POL 203 Government—State and Local	3	0	3

A study of state and local government, state-federal interrelationships, the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, revenues and appropriations. Special attention will be given to North Carolina. Prerequisite: None.

		Hours Per Week Class	Lab	Quarter Hours Credit

PSYCHOLOGY

T-PSY 112	**Personality Development**	3	0	3

This course is designed to make meaningful to the student the behavior involved in personal and social adjustment. Emphasis will be placed on developing the individual student's abilities through participation in social and interpersonal situations.

PSY 201	**Introduction to Psychology I**	3	0	3

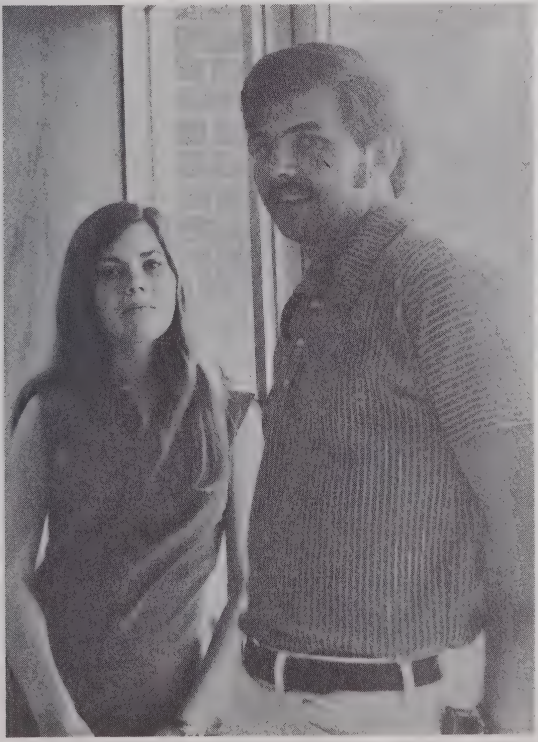
An overview of the field of psychology as a behavioral science. The principles of learning are used as a perspective leading to the subjects of physiology, behavior development, motivation, perception, human abilities, and personal adjustment.

PSY 202	**Introduction to Psychology II**	3	0	3

A continuation of PSY 201 covering personality theory, psychometric concepts and uses, emotion, communication, group and social activities. Prerequisite: PSY 201.

PSY 203	**Adolescent Psychology**	3	0	3

An overview of the social psychological considerations relevant to adolescence. Heavy use will be made of contemporary problems in order to give more meaning to such topics as emotional development, physical development, identity problems, parental and social pressures, and personality development.



	Hours Per Week Class	Lab	Quarter Hours Credit
T-PSY 206 Applied Psychology	3	0	3

The use of social-psychological principles in the everyday working and living situations is stressed in this course. Emphasis will be placed upon the understanding and application of interpersonal relation methods with supervisors, peers, and subordinates. Attention is given to social attitudes and values and their effect upon personal and social adjustment.

PSY 207 Educational Psychology 3 0 3

A presentation of essential learning principles. Major concepts in thinking, learning, and development are emphasized. Special attention is given to measurement, guidance, materials and learning situations. Prerequisite: PSY 201.

PSY 210 Human Growth and Development 3 0 3

A study of the interaction of maturational and environmental factors in the development of the individual from conception to maturity. Prerequisite: PSY 201.

PSY 215 Introduction to Exceptional Individuals 3 0 3

This course is designed to introduce the student to the exceptional or abnormal person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped will be an integral part of the course. Prerequisite: PSY 201.

PSY 1101 Human Relations 3 0 3

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

RADIOLOGY

RDT 101 Orientation, Radiation Protection, and Professional Ethics 2 0 2

The student will receive an over all view of Radiologic Technology and the part Radiology plays in medicine, and become acquainted with the general structure of applied medicine. The student in addition, will become acquainted with good ethical principles; learn the responsibilities intailed by becoming a member of paramedical profession; and the relationship of the radiologic technologist to other technologists, patients, radiologists, and attending physicians as well as the other members of the hospital staff.
Prerequisite: none.

RDT 106 Medical Terminology 1 0 1

A study of medical terminology as applied to the speciality of radiology; specifically to learn anatomical names of bones and organs of the body and other anatomical descriptive terms, radiographic terms and common abbreviations, commonly used medical terms, prefixes and suffixes as well as meaning of such terms and their proper usage. Prerequisite: None.

RDT 107 Medical Terminology II 1 0 1

A study of medical terminology as applied to the speciality of radiology; specifically to learn anatomical names of bones and organs of the body and

Hours Per Week Class Lab — Quarter Hours Credit

other anatomical descriptive terms, radiographic terms and common abbreviations, commonly used medical terms, prefixes and suffixes as well as meaning of such terms and their proper usage. Prerequisite: RDT 106.

RDT 108 Nursing Procedures 1 0 1

The student will become acquainted with nursing procedures and techniques used in the general care of the patient with emphasis on the role of the radiologic technologist in various nursing situations. Prerequisite: None.

RDT 109 Pediatric Radiography 1 0 1

A study of definite methods and procedures that the technologist will need with young children. Emphasis is placed on minimizing the amount of radiation to the patient. Prerequisite: RDT 111.

RDT 110 Radiographic Techniques I 2 12 6

A detailed study of darkroom chemicals and techniques including history and development of x-ray film and darkroom accessories, chemical constituents and processing solutions, and types of processing apparatus. Principles of radiographic exposure and positioning will be introduced. Clinical experience in patient handling and study of x-ray machines will begin. Prerequisite: None.

RDT 111 Radiographic Techniques II 3 15 8

A thorough understanding of the theory of x-ray technique (radiographic exposure) with co-relation of knowledge through practical application in clinical experience. Precise and detailed information on radiographic positioning of structures and organs with practical application in the radiographic room. Students x-rays taken during clinical experience will be studied. Prerequisite: RDT 110.

RDT 112 Radiographic Techniques III 4 15 9

A study of common procedures in radiography involving the use of contrast media, equipment and media used, and the reactions and contra-indications to these media. Various positions through practical application will show necessity for different views to maintain correct detail and proportion of parts, especially pertaining to pediatric radiology. Sterile techniques and a study of students x-rays taken during clinical experience will be included. Prerequisite: RDT 111.

RDT 113 Radiologic Technology Lab 0 36 12

Hospital clinical experience in patient handling covering studies of first three quarters. Prerequisite: RDT 112, RDT 114.

RDT 114 Radiologic Technology Seminar 2 0 2

Seminar-discussions based on clinical experiences with a film critique corequisite RDT 113.

RDT 201 Topographic Anatomy 2 0 2

A review of anatomy from the standpoint of topographic anatomy and the relationship of organs to each other. Stress is upon the location of each organ using surface landmarks and the relation of the organ to other organs within the same anatomic region. Prerequisite: RDT 105.

RDT 202 Patient & Personnel Protection 1 0 1

A course to include the general principles of protection, reasons for protective measures to personnel and patients, and examinations requiring special protective measures. Prerequisite: RDT 112.

	Hours Per Week Class	Lab	Quarter Hours Credit
RDT 203 Special Radiographic Procedures	2	0	2

The student becomes acquainted with the specialized and highly technical procedures in radiography, the equipment and opaque media used, and the general indications for each examination. Prerequisite: RDT 210.

RDT 204 Nuclear Medicine Technology	1	0	1

A study of radioactive isotopes which assist the radiologist in the diagnosis and/or treatment of illness or injury. Prerequisite: RDT 202.

RDT 206 Intraoral Radiography	1	0	1

Provide an understanding of the anatomy and contours of the teeth and mouth and of the geometry of image formation of this area. Familiarization with the essential equipment and accessories used in dental radiography and to point out the necessity of exact positioning of the central ray and the film in order to produce high quality radiographs. Prerequisite: RDT 210.

RDT 207 Radiation Therapy	1	0	1

A course designed to meet the basic minimal requirements for technologists in radiation therapy. Demonstration of the more commonly employed applications with emphasis placed upon the storage, handling of radioactive materials and the protective measures which must be taken in their use. Prerequisite: RDT 204.

RDT 208 Equipment Maintenance	2	0	2

Familiarization with the component circuits of an x-ray unit, and detection and correction of simple difficulties which interfere with or prevent proper function of the equipment or accessories. Fundamentals of preventive maintenance to avoid expensive breakdown will be explored. Prerequisite: RDT 211.

BUS 233 Departmental Administration	3	0	3

The student becomes acquainted with the organization, function, supervision and financial arrangements relative to departments of radiology. Correct departmental, intra- and inter-departmental relationships, such as those pertaining to attitudes and policies relative to personnel management will be discussed. Prerequisite: None.

RDT 210 Radiographic Techniques IV	3	18	9

A complete and thorough working knowledge of the manipulation of exposure factors through the completion of problems and experiments. Basic principles needed to construct technique charts for all situations and kilovoltage ranges will be learned. Positioning of patients in clinical practice will demonstrate various anatomical parts. Prerequisite: RDT 113.

RDT 211 Radiographic Techniques V	3	18	9

Principles or radiographic exposures, positioning of patients for x-ray examinations, study of the machines and methods employed in treating and diagnosing a patients illness will be studied. Introduction of the handling of radioactive isotopes and other therapy units will be introduced. Students x-rays taken during clinical experiences will be studied. Prerequisite: RDT 210.

RDT 212 Radiographic Techniques VI	3	18	9

A detailed study of machines and methods employed in treating and diagnosing a patients illness including the handling of radioactive isotopes, control of the Beatron, Cobolt 60 and many other therapy units. Procedures used in special studies such as motion pictures, rapid film changes etc. will be introduced. Minor services which technicians perform on equipment will be undertaken. Students x-rays taken during clinical experience will be studied. Prerequisite: RDT 211.

RDT 213 Radiographic Techniques VII	2	30	12

Hospital clinical experience in patient handling covering studies of the pre-

	Hours Per Week Class	Lab	Quarter Hours Credit

vious seven quarters. A general review of all subject will be undertaken to prepare the student for examinations. Prerequisite: RDT 212.

RDT 214 Radiographic Techniques Seminar 2 0 2

Seminar-discussions involving film critique and pre-registry examination review period.
Co-requisite: RDT 213.

RECREATION

REC 101 Introduction to Recreation Services 3 0 3

This course introduces the student to the historical and philosophical foundation of recreation and leisure. The basic principles, the definition, and the impact and trends of recreation are presented. Emphasis on the different agencies providing recreational services will be included with visitations being scheduled to public, private, industrial, and institutional recreational programs. Prerequisite: None.

REC 102 Introduction to the Ill & Handicapped 3 0 3

This course is designed to introduce the student to the exceptional person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped will be an integral part of the course. Prerequisite: None.

	Hours Per Week Class	Lab	Quarter Hours Credit
REC 103 Recreation Programming	3	0	3

The underlying principles for effective recreation programming are presented in this course. An overview of the variety of program areas associated with recreators are discussed and attention is given to the recreation interests and needs of the participants. Major objectives of this course are to provide the student with a basic knowledge which will enable him to plan, organize and provide leadership in program participation and develop an understanding of the facilities and equipment necessary. This course will also emphasize the adaptation of activities and equipment for special groups. Prerequisite: None.

REC 104 Rehabilitation Services 3 0 3

This course is designed to aid the students' understanding of the therapies composing the rehabilitation service. Special emphasis will be placed on the role of the recreation therapist and how it relates to occupational therapy, music therapy, industrial therapy, physical therapy, inhalation therapy, education therapy, and volunteer service. Considerable amount of time will be centered around guest speakers from the different therapies. Prerequisite: None.

REC 105 Recreational Areas and Facilities 3 0 3

This course explores the different types of indoor and outdoor recreational areas and facilities and their use. The principles in planning, the dimensions and standards, maintenance, and the operation of areas and facilities, such as parks, playgrounds, ball fields, centers, tennis courts, swimming pools, and others will be studied. Consideration will be given to architectural barriers of areas and facilities needed by the handicapped participant. Prerequisite: None.

REC 106 Camping 3 0 3

This course is designed to develop an understanding of the operation of a camping program. Particular course emphasis will be placed on camping for the ill and handicapped, and the architectural barriers which often exist. Operational concerns, varying from the use of volunteers to the maintenance of grounds, will be covered in this course. Local, private and institutional camps will be visited as part of the course. Prerequisite: None.

REC 107 Team Sports 1 4 3

This activity course is devised to develop the students' knowledge and ability in team sports and games. The rules and regulations, field dimensions, equipment and safety factors will be studied. Activities for groups of different ages and abilities will be presented. Student participation will be utilized in softball, flag football, soccer, basketball, volleyball, relays, and other team sports and events. Prerequisite: None.

REC 109 First Aid and Safety 3 0 3

It is important for the recreation leader to have an understanding of first aid and safety procedures, especially when handicapped persons are involved. This course presents the skills, techniques, and knowledge needed to have a safe environment. Adequate class time will be reserved for practical demonstrations of first aid and safety. Students will be provided the opportunity to obtain the Standard and Advanced First Aid Certificate. Prerequisite: None.

REC 110 Creative Crafts 1 4 3

This skill course is designed to develop specific talents in recreational arts and crafts. The methods, materials and techniques for teaching arts and crafts to children and adults will be presented with special emphasis on projects for the handicapped. Skill areas to be taught will be pottery, creative art, leather craft, ceramics, copper tooling, mosaics, printing, sculpturing, painting, and nature crafts. Prerequisite: None.

	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
REC 121 Social Recreation	3	0	3

The purpose of this course is to develop skill in planning social recreational activities. Party planning, special events, social games, quiet games, trips and picnics, and decorating will be emphasized in this course. For practical experience, students will have the opportunity to work with different age groups on community projects in social recreation. Prerequisite: None.

	Class	Lab	Credit
REC 201 Recreation Administration	3	0	3

This course is designed to introduce the student to basic principles and concepts of recreation administration. Primary emphasis will be on the administration of hospitals and municipal recreation programs. Administrative concerns in personnel management, public relations, budgeting and finance, and legislation will be presented.

	Class	Lab	Credit
REC 202 Recreation Leadership	3	0	3

Basic skills in working with people is an important asset to the recreation leader who daily works with program participants, volunteers, staff, and the public. This course focuses on the types of leadership, parliamentary procedure, role playing, interviewing, training and recruiting volunteers, and human relations. Students will have the opportunity to observe community leaders and to evaluate their effectiveness. Prerequisite: None.

	Class	Lab	Credit
REC 203 Water Sports	1	4	3

This course is intended to develop an understanding of the values, objectives, and skills involved in a swimming and water sports program. Particular attention will be given to swimming and water activities for children, adults, and the handicapped. The organizational and administrative aspects of a swimming program, teaching progressions and methods, and water games will be included. The water skills will be taught at a local pool. Students will be afforded the opportunity to obtain a senior life saving certificate. Prerequisite: None.

	Class	Lab	Credit
REC 204 Individual Sports	1	4	3

This activity course is designed to develop the student's ability and understanding of individual sports and games. The student will be given class instruction on the proper techniques, rules, and equipment with emphasis on adapting the activity to the abilities of the handicapped. Sports and games to be included are bowling, golf, archery, hiking, cycling, and tennis. Prerequisite: None.

	Class	Lab	Credit
REC 205 Outdoor Education	3	0	3

An investigation of the history and significance of the outdoor education movement and an examination of current ideas and practices. Attention will be focused on environmental problems, conservation, wildlife, nature, fisheries, and other ecological points of interest. Field trips will supplement lectures. Prerequisite: None.

	Class	Lab	Credit
REC 206 Recreational Drama	1	4	3

This activity course explores the use of drama in a recreational setting. Particular attention is placed upon the type of dramatic activities which can be used effectively with children and adults and special groups. Creative activities such as pantomime, plays, charades, stunts and skits, storytelling, and costuming will be part of this course. Special emphasis will be placed on props, lighting, makeup, sound, and costuming. Student participation will be required. Prerequisite: None.

	Class	Lab	Credit
REC 207 Field Work	0	6	2

Student filed assignments in the municipal and hospital recreation settings will begin in the third quarter of the Recreation Curriculum. The field place-

Hours Per Week Class Lab — Quarter Hours Credit

ment is designed to give the student practical experience while undertaking his academic work. The student will be under the direction of a full-time professional. Evaluation reports of the field work will be submitted by the student and the supervisor. Prerequisite: Two quarters of study in Recreation Curriculum is required before any internship is permitted.

REC 208 Field Work 0 6 2

Students will be placed in a setting different from the setting of the previous quarter. Six hours of field work per week will be required. This work will be under the supervision of a professional worker in a specific area of interest. Prerequisite: REC 207.

REC 209 Field Work 0 9 3

Nine hours of field placement will be required during the fifth quarter of the Recreation Leadership Curriculum. This field work will be under the supervision of a professional worker in the specific area of interest. Prerequisite: REC 208.

REC 210 Field Work 0 15 5

The sixth quarter of the Recreation Leadership Curriculum will primarily be consumed with practical work experience in the student's chosen area of interest. Fifteen (15) hours of field work per week will be devoted to this placement. This placement will be under the direction of a full-time professional. Prerequisite: REC 209.

REC 211 Recreation Seminar 1 0 1

The purpose of this course is to assist the student in preparation to become a professional recreation leader. Special emphasis will include: professional organizations, job application, personal interviews, personal appearances, and interpersonal relationships. The recreation faculty will coordinate this seminar. Prerequisite: The completion of 5 successful quarters in Recreation Leadership Curriculum.

RELIGION

(No Prerequisites)

REL 201 Introduction to Old Testament 3 0 3

An examination of history, literature, and religious ideas of the Ancient Near East as reflected in the Old Testament.

REL 202 Introduction to New Testament 3 0 3

A critical examination of the rise and spread of the Christain faith as recorded in the New Testament, with special emphasis on the ministries of Jesus and Paul.

REL 203 World Religions 3 0 3

An introduction to the major religions of the world including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Islam, Christianity, based on their history, literature, teachings and present day practices.

SOCIOLOGY

SOC 201 Introduction to Sociology 3 0 3

A study of the fundamental principles and concepts of sociology, with emphasis on contemporary American Institutions in relation to technological change, ethnic groups, population trends, and social control. Prerequisite: None.

	Hours Per Week Class	Lab	Quarter Hours Credit
T-SOC 201 Government and the Citizen	3	0	3

A study of government with emphasis on basic concepts, structure, powers, procedures and problems. The relation and significance of governmental processes to the individual citizen is also stressed.

T-SOC 202 Contemporary Problems	3	0	3

A study of the major problems of modern society, such as the condition of minority groups, problems associated with industrial and urban development, and the increase of alienation of the young. The course will also be involved in problems as they arise during the quarter, and will therefore be loosely structured to accomodate current issues.

SOC 203 Contemporary Problems and Social Issues	3	0	3

Critical analysis of some of the major current social issues and problems in American society.

SOC 205 Marriage and the Family	3	0	3

The study of family relationships, its forms and functions. Included in the study are marital choice, sex roles, socialization, organization and functions of the American family. Prerequisite: None.

SOC 207 Rural Society	3	0	3

Rural Appalachian society is the main focus of study in this course. The orientation of the material will be around problems and conditions in rural Appalachia and its people. Prerequisite: None.

SPANISH

SPA 101, 102, 103 Elementary Spanish	3	2	3

A study of the basic elements of Spanish. Fundamentals of grammar; drill in pronounciation, reading, and special emphasis on oral expression in the language. This sequence of courses is designed for students with less than two units of high school Spanish.

SPA 201, 202, 203 Intermediate Spanish	3	2	3

An intermediate Spanish sequence designed to provide a systematic review of basic grammar and to develop the ability to read with comprehension material dealing with Spanish Civilization. Prerequisite: SPA 103 or two high school units of Spanish.

SPA 211, 212, 213 Advanced Spanish	3	2	3

A sequence of courses conducted in the language, stressing the culture and history of Spanish, principally as reflected in the literature. Emphasis on advanced composition and reading of selections from Spanish literature. Prerequisite: SPA 203.

SPEECH

SPH 101 Fundamentals of Speech	3	0	3

The study and practice of oral communication. Emphasis is upon elementary physiology of speech, basic speech skills, speech composition, preparation, and presentation. Prerequisite: None.

Hours Per Week Class Lab Quarter Hours Credit

TEXTILES

TEX 1101 Yarn Manufacturing I 3 3 4

A basic study of the function of yarn manufacturing. Emphasis is placed on yarn manufacturing with study of flow systems, functions of each machine and machine part, and the introduction of basic calculations related to yarn manufacturing. Yarn numbering is included. Laboratory exercise to supplement lectures are included. Prerequisite: None. Corequisite: TEX 1104, MAT 1101.

TEX 1104 Textiles Fibers 2 2 3

A study of the physical, chemical and aesthetic properties of the major natural and man-made textile fibers. Included are methods of measuring properties, influence of fiber moisture regain on physical properties, and processing characteristics. Fiber identification by laboratory analysis is included. Prerequisite: None.

TEX 1106 Weaving 2 3 3

An introduction to the study of woven fabrics. The methods of preparing yarns for weaving, the weaving of fabrics, and the necessary calculations to produce a woven fabric are included. Laboratory exercises in the operation of the looms supplement the lectures. Prerequisite: TEX 1104. Co-requisite: TEX 1108.

TEX 1108 Yarn Manufacturing II 5 6 7

A continuation of TEX 1101, including blending methods, effectiveness and influence on end product. Twist in its many ramifications, spinning limits; drafting methods, types and limits. Packaging, production, and the determination of mill balance are discussed. Conventional and new developments in manufacturing concepts are included. Special yarn preparation systems are reviewed. Laboratory periods are used to supplement lectures. Prerequisites: TEX 1101, MAT 1101.

TEX 1110 Knitting 3 3 4

A study of the selection and preparation of knitting yarns, knitting mechanisms and the structure of different types of spring and latch needle fabrics. The operation and adjustment of the basic types of knitting machines are included in this course. Laboratory exercises are included. Prerequisite: TEX 1108.

TEX 1115 Textile Testing 3 2 4

This course includes Physical Textile Testing. The Physical Testing includes the methods and techniques of testing fibers, laps, roving, yarns and fabrics made from natural and synthetic fibers. Standard A.S.T.M. method and practices for the testing of textile materials are followed and a study is made of the various machines and apparatus employed in standard testing laboratories. Prerequisites: TEX 1108, TEX 1106.

TEX 1120 Fabric Design and Analysis 3 3 4

A study of the fundamental principles of fabric structure. It includes the study of the three basic weaves, plain, twill, and satin plus many of their derivatives. Instruction in fabric analysis techniques and the use of laboratory instruments for the determination of fabric construction details is included. Prerequisites: TEX 1108, TEX 1106.

UPHOLSTERY

UPH 1111 Upholstery Materials and Methods I 1 11 5

Includes history and periods of furniture; tools and equipment; hammer

	Hours Per Week Class	Lab	Quarter Hours Credit

technique; staple gun techniques; spring up methods; webbing and burlap application. Prerequisite: None.

UPH 1112 Upholstery Materials and Methods II	1	11	5

Continuation of UPH-1111 and basic methods for inside and outside upholstery, cushion styles. Prerequisite: UPH-1111.

UPH 1113 Upholstery Materials and Methods III	1	11	5

A course in the styles of furniture, sofas, love seats, recliners. Techniques in trimming band tufting and piping continuous practice in these areas. Prerequisite: UPH-1112.

UPH 1114 Upholstery Sewing I	1	11	5

Includes a study of upholstery sewing; basic operations of the sewing machine; simple sewing techniques. Prerequisite: None.

UPH 1115 Upholstery Sewing II	1	11	5

Covers advanced upholstery sewing, sewing matched stripes, making patterns and other sewing techniques. Prerequisite: UPH 1114.

UPH 1116 Upholstery Cutting I	1	11	5

Job experience is devoted to basic cutting techniques; how to measure frames; cutting with shears; lay cutting. Prerequisite: None.

UPH 1117 Upholstery Cutting II	1	11	5

Includes how to make patterns, cut matched patterns; line up and cut stripe patterns. Prerequisite: UPH 1116.

WELDING

WLD 1101 Basic Gas Welding	0	3	1

Welding demonstration by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for bronze welding, fusion welding, filet welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. Prerequisite: None.

WLD 1112 Mechanical Testing and Inspection	1	3	2

The standard methods of mechanical testing of welds. The student is introduced to the various types of tests and testing procedures and performs the details of the test which will give adequate information as to the quality and economy of the weld. Types of tests to be covered are: destructive—free-bend, guided-bend, nick-tear, notched-bend, tee-bend; nondestructive—V-notch, Charpy impact, etc. Prerequisites: WLD 1120, WLD 1121.

WLD 1120 Oxyacetylene Welding and Cutting	3	13	7

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice in puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures are stressed through the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds. Prerequisite: None.

WLD 1120-1 Oxyacetylene Welding and Cutting (Part time)	2	6	4
WLD 1120-2 Oxyacetylene Welding and Cutting (Part time)	1	7	3
WLD 1121 Arc Welding	3	12	7

The operation of AC transformers and DC motor generator arc welding

Hours Per Week: Class Lab — Quarter Hours Credit

sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment. Prerequisite: None.

WLD 1121-1 Arc Welding (Part time) 2 6 4

WLD 1121-2 Arc Welding (Part time) 1 7 3

WLD 1122 Commercial and Industrial Practice 3 9 6

Designed to build skills through practices in simulated and actual industrial processes and techniques: sketching and layout out on paper the size and shape description, listing the procedure steps necessary to build the product and estimating time and material and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 1120, WLD 1121.

WLD 1123 Inert Gas Welding 1 3 2

Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and semi-automatic welding. Prerequisites: WLD 1120, WLD 1121.

WLD 1124 Pipe Welding 3 12 7

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding, processes according to Sections VIII and IX of the ASME code. Prerequisite: WLD 1121.

WLD 1124-1 Pipe Welding (Part time) 2 6 4

WLD 1124-2 Pipe Welding (Part time) 1 7 3

WLD 1125 Certification Practices 3 6 5

This course involves practice in welding the various materials to meet certification standards. The student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skill in producing quality welds. Prerequisites: WLD 1120, WLD 1121, WLD 1123, WLD 1124.

WLD 1126 Adv. Metal Inert Gas Welding 2 8 5

Advanced metal inert gas welding is an intensive study of this process with emphasis on both production and general uses of this process. Studies will be made in wire types, size and selection. The student will work with this type machine exclusively with practice in low and high carbon steels, stainless steels and aluminum. Shielding gases used will include carbon dioxide, argon and various mixtures. Prerequisite: WLD 1123.

WLD 1129 Basic Welding 2 3 3

Basic characteristics of metals, equipment, its construction and operation are presented by means of audio-visuals and other educational media. Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment. Practice will be given in surface welding; bronze welding, silver-soldering, and flame-cutting and arc welding methods applicable to mechanical repair work. Prerequisite: None.

Course	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
WLD 1130 Intermediate Welding	1	3	2

Welding instruction and shop demonstrations in modern welding methods used by mechanics to fabricate steel and to maintain the equipment. The student learns procedures and techniques of joining frame members, supporting members, struts, braces, and other parts according to approved practices. Prerequisite: WLD 1129.

Course	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
WLD 1131 Design of Welded Structures	3	6	5

This course will consist of studies into proper procedures used in the welding industry for fabrication and reinforcement. The student will work with various methods of reinforcement and placement of reinforcing members. Studies will be made of strengths of various metals both ferrous and non-ferrous. Prerequisite: WLD 1122 or consent of instructor.

Course	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
WLD 1132 Adv. Tungsten Inert Gas Welding	2	8	5

This course will consist of working exclusively with this process with emphasis on proper selection of materials, filler rod, sheilding gases and electrode manipulation. There will be exercises in cost estimating and job estimating. The majority of the work will be in non-ferrous metals. Prerequisite: WLD 1123.

Course	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
WLD 1133 Operations of the Job Shop	6	2	5

This course will deal with the problems that are unique in the job shop. There will be exercises in job estimating and cost estimating. Studies will be made in material procurement and handling. Proper procedure for bidding on jobs will also be stressed. Prerequisite: WLD 1123.

Course	Hours Per Week Class	Hours Per Week Lab	Quarter Hours Credit
WLD 1134 Welding Power Supplies	3	1	3

Alternating current, direct current and combination welding power supplies will be covered studies and will also be made of portable motor generator units. High frequency and remote control power supplies will be covered with exercises in machines selection to match the operation to be performed. Prerequisite: WLD 1121.

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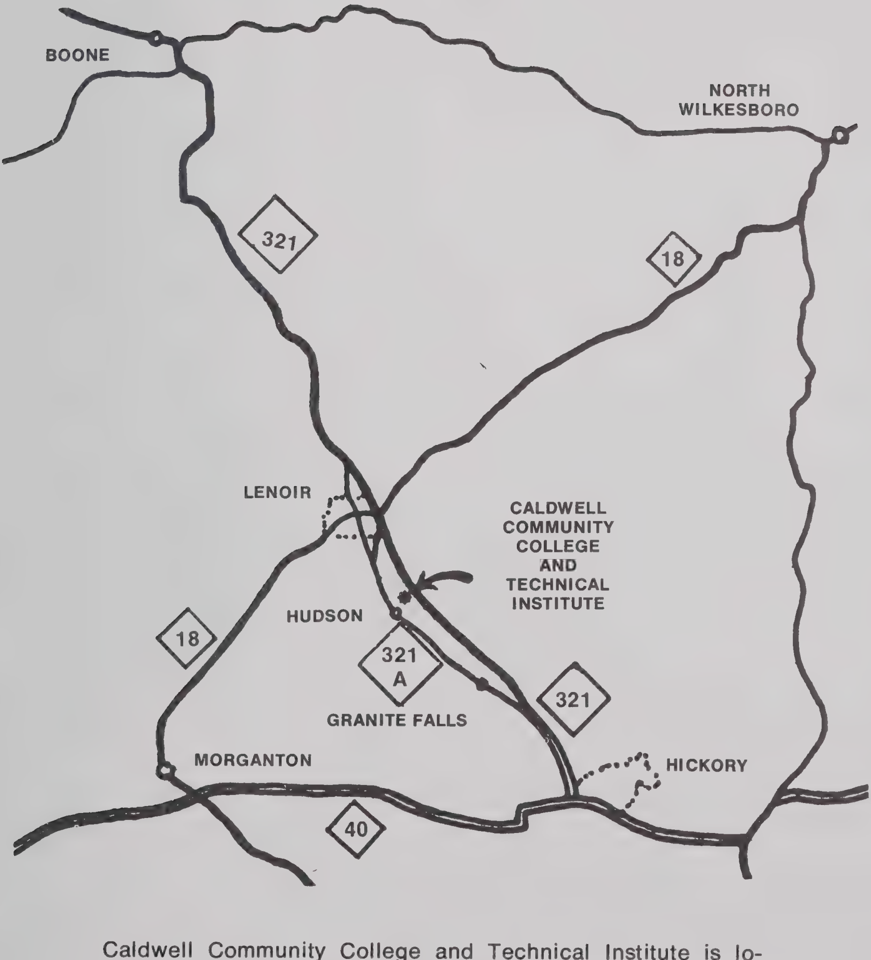

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